BRITAIN'S BEST-SELLING MACINTOSH MAGAZINE

MACFORMAT

ISSUE 28 ■ [illegible] ■ £3.99 WITH HD DISK

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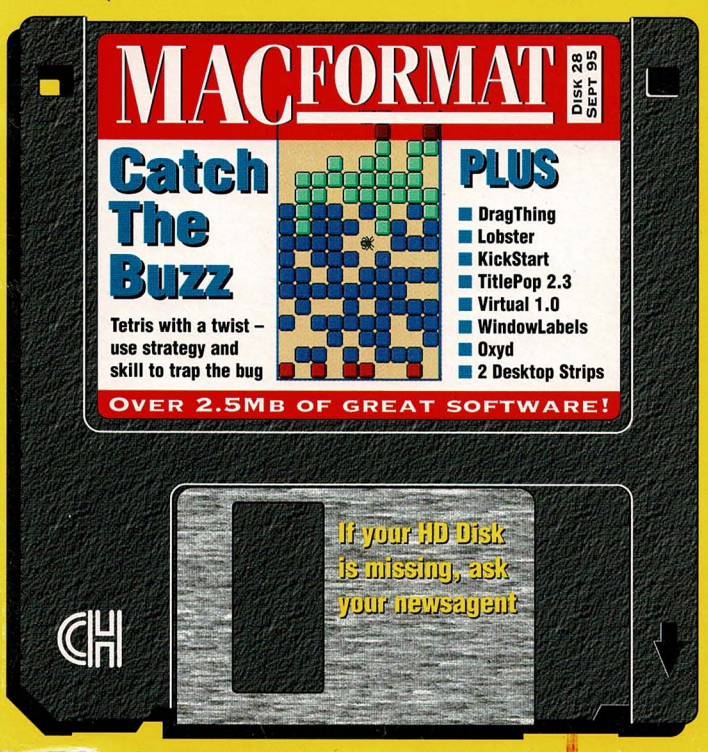
Unreal!

Discover how image editing can make the impossible real!

- Techniques and tricks
- The latest software
- How the pros do it

For more disk details – see the back cover

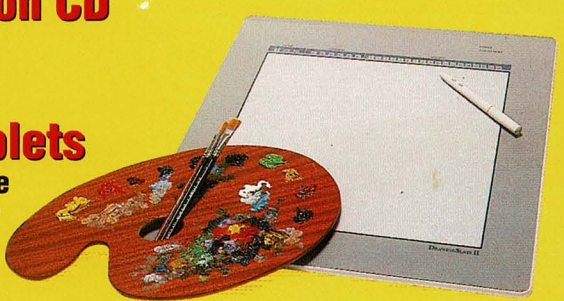


Clip photos on CD

Millions of snaps at your fingertips!

Graphics tablets

Will the Mac replace brushes and paints?



Star Wars!

Battle the Empire in the latest hit blast-'em-up!

PLUS 'X-files'? Exactly what *do* those files in your System folder do? ■ Get into the Internet with our how-to series ■ The word processor that writes in any alphabet ■ Spreadsheet basics

SEPTEMBER 1995

future PUBLISHING

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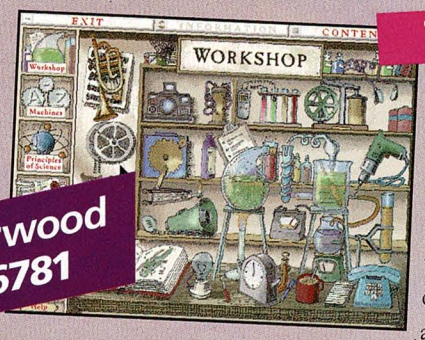
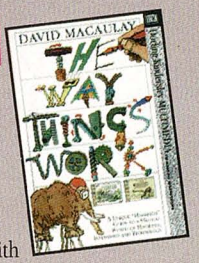
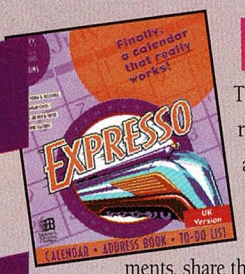
The Way Things Work

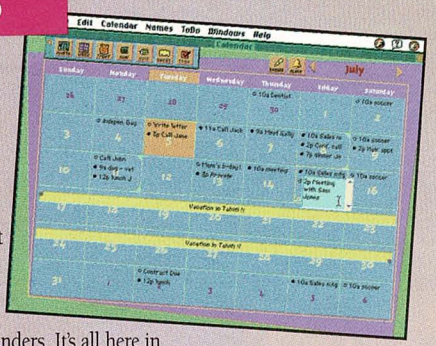




Based on the best selling book by David Macaulay, The Way Things Work is an outstanding multimedia learning tool. From telescopes to telephones, from lasers to light bulbs, more than 200 inventions come to life with the click of the mouse. Children aged 7 to 70 can embark on a journey of scientific discovery with animation, audio and over a thousand illustrations. **CD SRP £50.21**

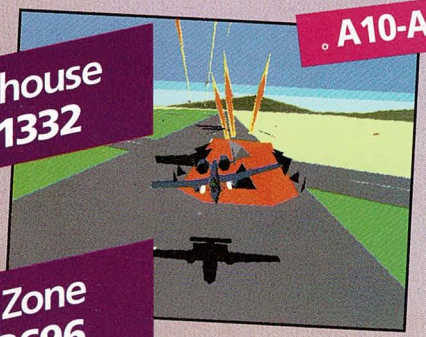
Expresso





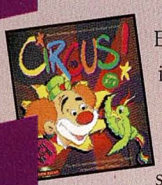
The unique calendar, reminder, to-do and address book system. With Expresso you can track your appointments, share them over a network, print them and even have them as your Macs' desktop background. Choose from many visual styles, import ot export your data, set-up alarms and reminders. It's all here in the most powerful and elegant calendar system around! **SRP £25.52**

A10-Attack



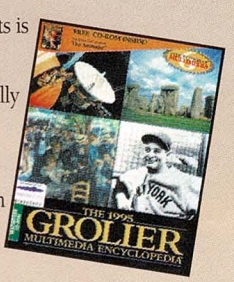
The most eagerly awaited flight simulator, ever! From the creators of the award winning Hellcats comes the most advanced simulator to hit the Mac. With physically accurate flight models and intriguing missions, A-10 Attack delivers the hottest combination of action and strategy around. Amazing attention to detail—moving flaps, object dynamics, landscapes with canyons, intelligent enemies and the future ability to plug into a Virtual Battlefield! **SRP £49.99**

Circus



Explore the magical world of the Circus in this wonderful interactive cartoon. There are 30 places to visit, each with things to do or discover: explore the show tent where you can take part in a variety of acts; make up the clowns in their trailer; visit the animals backstage and play a series of instruments in the music tent. Crisp, fun animation encourages children to develop skills without even realising they are learning! **CD SRP £34.03**

Grolier 95 Encyclopedia



Taking reference exploration to new heights is The 1995 Grolier Multimedia Encyclopedia. With over six full hours of multimedia, this fully updated and revised edition will unleash the power of information in just seconds. This is the most complete multimedia encyclopedia on the market today! **CD SRP £68.04**

Triazzle

Based on the best selling game by Dan Gilbert, Triazzle will entertain the entire family with beautiful graphics and noises inspired by the rainforest. Rotate and match the triangular pieces—simple to grasp, devilishly difficult to master! Easy option for kids and Star Triazzle for a real challenge. The CD ROM version includes a free Triazzle After Dark module. A donation is made to the 'Rainforest Alliance' with each copy sold. **CD or Floppy SRP £21.27**

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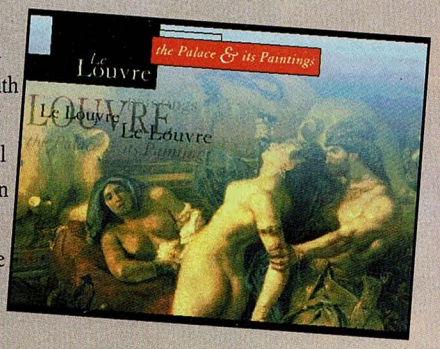
Le Louvre



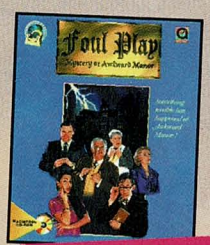
An interactive journey through the world famous art gallery with the aid of models, blueprints and over 2 hours of detailed commentary. Examine paintings in detail and even learn about their form and composition via clear animation and narration. 'A tasteful, elegant & sophisticated CD ROM.' –Rated 5/5 The Mac. 'The most comprehensive and powerful display of art through the vehicle of multimedia' –The Bookseller **CD SRP £38.29**

Buried In Time

The walls between past, present and future dissolve into a richly woven tapestry of betrayal and deception. Falsely accused of altering history, you must travel through the shadows of time, unravelling clues and escaping mortal danger, with only your intellect and cunning to save you. 'Presto Studios have hit the jackpot with Buried In Time' — PC Attack. **CD SRP £34.03**

SAVE

Foul Play



Something terrible has happened at Awkward Manor! For those who love a good murder mystery, here's a new twist. Now you can explore an elegant English mansion, just as if you were there. There are 10 difficulty levels and literally thousands of puzzles. Interview the suspects and explore the mansion to gather clues. Ideal for single players or entire families, up to 6 players can take part! **CD SRP £34.00**

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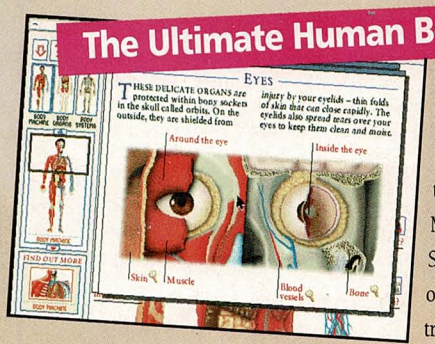
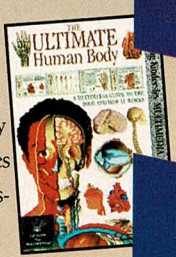
The Ultimate Human Body





Take an interactive journey inside the human body to discover what every part of the body is called, see where it is situated, what it looks like and how it functions. Explore the body through three intuitive, easy-to-use search paths — The Body Machine, The Body Organs and The Body Systems. Over 100 animations, 45 minutes of audio, 1400 sounds and over 1000 illustrations. **CD SRP £50.21**

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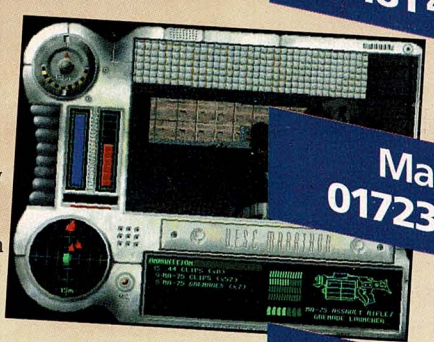
Marathon



They wait for you. Behind every corner, inside your worst nightmares. You are the last hope for defending the starship Marathon against an onslaught of hostile aliens. Advanced weaponry and surreal settings create a truly unique environment. Marathon has it all — captivating single player gameplay with total network carnage. **CD or Floppy SRP £49.99**

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FlightStick & JetStick

The FlightStick Pro is the ultimate combat stick for all Macintosh computers. Programmable controls give you unlimited range of functions for any mission, activate radar; arm and disarm weapons and view outside your aircraft without ever removing your hand from the stick. Three fire buttons, Trigger, Throttle, Trims and an 8-way switch can all be configured via an easy-to-use control panel. The Jetstick offers quality performance at an affordable price. It connects to the ADB port and comes with software that lets you easily customise its features. **FlightStick SRP £85.06 JetStick SRP £51.06**

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MACFORMAT

ISSUE 28 ■ SEPTEMBER 1995

The Finder

REVIEWS IN THIS ISSUE

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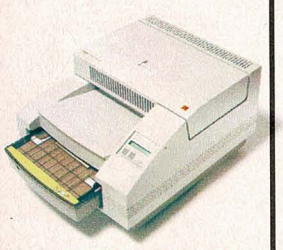


What does a high-end printer like this have to offer you?

See page 24

HOW TO...

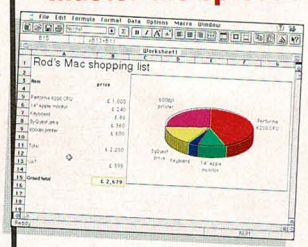
Understand the X-files 67

What exactly *do* all those files in your System folder do? In this second part of our exposé of the mysteries of Extensions and Control Panels, we reveal what you really need and what you can trash to save space and memory...

Get into the Internet 73

We continue our back-to-basics guide to all you really need to know about the Net with the full gen on the essentials: a modem and a service provider.

Master the spreadsheet basics 76



Spreadsheets needn't be dull and boring – they're really just like fully-programmable calculators which can hold vast details in memory and update instantly! So what can they do for you?

Use HyperCard 79

This month we explain how Apple's versatile multimedia creator can show you a slideshow of PICT images – all the details of how it works are here.

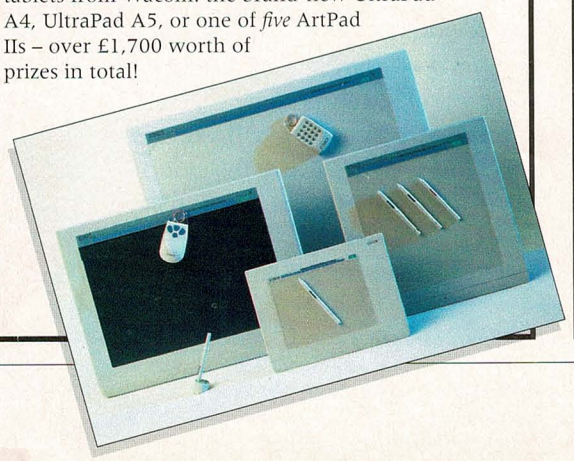
Mac Answers 83

More of your problems solved by our experts, from how to send graphics files by modem to how to create custom icons, plus a Mac called Stephanie...

WIN! WIN! WIN!

Seven Wacom UltraPads 146

You could win one of the very latest graphics tablets from Wacom: the brand-new UltraPad A4, UltraPad A5, or one of *five* ArtPad IIs – over £1,700 worth of prizes in total!



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All there is to know about MACFORMAT, almost...

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MACFORMAT's on the World Wide Web – here's what you'll find on FutureNet, and how it can really take you places!

News 21

PageMaker is revamped to tackle *QuarkXPress*, the cost of using the Internet falls, and your chance to upgrade your PowerBook to Power-PC for free!

What's New 24

The latest product news, from budget-price 3D graphics to high-end colour printing and from Windows to arcade games...

MacroScope: Behind the News 30

Learn how Apple is behind plans to revolutionise computing networks, and catch up with Apple's rapidly-evolving multimedia console.

Apple Talk: Letters 36

What to do with old software, why demos are a bad thing and why *Quark* isn't all it's cracked up to be!

Soapbox: 'Photoshop's a pig' 125

If the Mac is so easy to use, why is *Photoshop* so unfriendly, asks a MACFORMAT reader.

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Fill in the gaps in your MACFORMAT collection.

Gamebusters 137

Discover *The Secret Of Monkey Island* in the final part of our complete solution, and go to the Ant...

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Buying Advice 144

Know your rights when you shop.

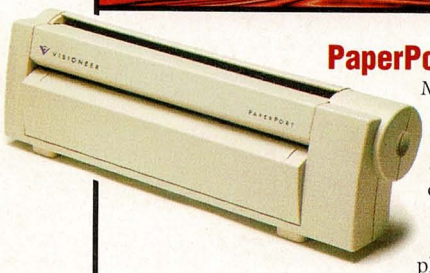
Classic System Crew 144

Discover what *really* goes on inside your old Mac...

Next Month 145

The most spectacular, packed, fantastic MACFORMAT *ever!* But don't just take my word – here's proof!

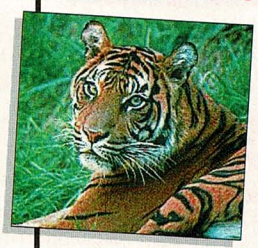
REVIEWS



PaperPort 96
More than just a simple scanner, the Visioneer PaperPort also offers faxing, a complete document management system and even photocopying...

WorldWrite 98
For a relatively affordable word processor, *WorldWrite* boasts some surprisingly powerful DTP-like features – and it even writes in any alphabet!

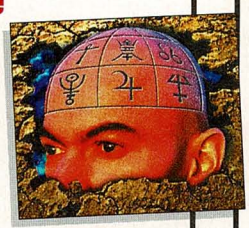
Multimedia: CD Safari!



Animals on CD-ROM, from the wild to the zoo to your own back yard:

How Animals Move 102
The Animals! 2.0 103
Wild Africa 104
Garden Wildlife 106

Multimedia: Pop Lifestyle
Interactive lifestyle mags, plus style without a life...



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Blender 109
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Eleven Track Player 110

Education: CD Dictionaries 112
What can a dictionary on CD-ROM offer you that the paper variety can't? We look it up in Dorling Kindersley's *My First Amazing, Incredible Dictionary* and Macmillan's *Dictionary for Children.*

Music

Makin Music 117

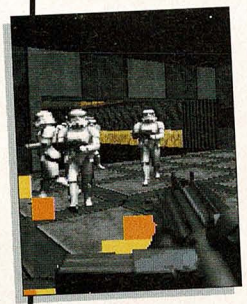
An amazing CD full of music programs.

Circle Elements 118

An innovative sample-based music creation system.

Shareware Heaven 121
The cream of this month's low-cost and no-cost software from the Internet – utilities, games, tarot readers and even an alien language...

Games Reviews



Look out! Not only do Darth Vader's Imperial Stormtroopers invade the Mac this month, but the A-10 attacks!

Dark Forces 130
A-10 Attack 132
Spaceward Ho! 134
Ishido 136

Utilities: Little Mac Toolkit 138
It's not just a 500-page book, but an amazing collection of utilities on CD-ROM.

FEATURES

Unreal!

Let your imagination soar! Mac image manipulation can make the impossible real – and you don't necessarily have to invest in *Photoshop* to do it...

How it's done 42
What image editing is all about, a step-by-step description of how we created our striking cover image, and a guide to image editing software.

Restoration Art 48
How one professional turned to the Mac for photo retouching, and how it compares to traditional manual techniques.

Image editing software 52
In-depth reviews of the new versions of two *Photoshop* rivals, *Color It! 3.0* and *XRes 1.2*. How do they fare against the champion?

Clip Photos 58
Where can you turn for the picture you need, whether you're going to use it as-is or edit it? There's now a huge range of 'clip photos' available on CD-ROM – we test ten of the major packages, and there are over 80 photographic images, most in high-res, on our cover CD-ROM for you to try!

Graphics Tablets 88
More intuitive than a mouse, more responsive than a trackball, a graphics tablet with stylus can make creating Mac graphics as easy as painting or drawing on paper! We put the top tablets to the test:

Summagraphics SummaSketch III 89
Calcomp DrawingSlate II 89
Quora Cordless A4 90
Kurta XGT/ADB 12C 90
Wacom UD-1212MK 91
MacHandwriter 91

The gratuitous tottie after the absolutely integral violence...
See page 121

COVER DISKS

MACFORMAT comes with a choice of CD-ROM or high-density disk every month:

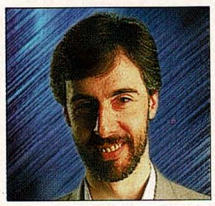
Your CD-ROM 8
Try image-manipulation for yourself with our demo of *Colour It! 3.0* and the 80-plus photos on the CD (complete catalogue on page 10), plus *Dark Forces, WorldWrite, Wild Africa* and others, over 100Mb of the latest shareware, and everything below...

Your Cover Disk 12
Tetris with a twist, a scrabble game, and a top selection of utlities to add extra Desktop space, customise windows and make navigation easy!

Welcome to MACFORMAT

Everything you wanted to know about MACFORMAT... as well as a few of our favourite (Mac-related) things...

ABOUT OUR WRITERS

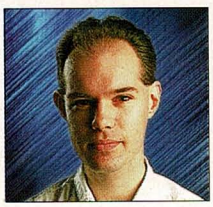


ALEX SUMMERSBY

Alex's first computer was a Kaypro II (anyone remember Kaypro? Or even *heard* of 'em?). He learned about Macs by using them, and is still impressed by windows, icons and folders, but his favourite Mac interface feature is aliases.

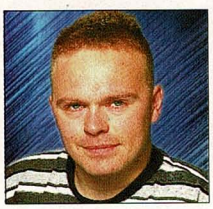
DEREK SMITH

Our technical expert is so good at his job that he's being poached by Future Publishing's Mac Services department, so he's been spending half his time solving the company's Mac problems. His favourite feature right now is multitasking.



RICHARD HILL

Rich says his favourite bit of the System is the Audio CD Player, and the bit that makes him go 'woo!' is QuickTime VR, but the most underused part is AppleGuide. Naive of us really to expect our multimedia man to say just QuickTime...



MARCUS DYSON

Back when he was one of Future Publishing's top art editors, Marcus was renowned as a Mac graphics whizz. He's now head of the multimedia division of a leading software house. His favourite feature? QuickTime, he says obligingly.

ROD LAWTON

Our versatile *HyperCard* expert has been setting up his own business this month, so it's been a very opportune time for him to remind us how much he knows about spreadsheets and utilities too. His favourite Mac feature: configurability.

OFIR GAL

A new face for this page but a respected computer journalist with a special interest in the Mac, Ofir speaks Hebrew, Arabic and probably a whole lot of other exotic languages. His favourite feature *must* be WorldScript (see page 98).

YOU?

Speaking of faces, yours could be gracing this page (or not, if you have no features fit to be seen in public...)! We're always looking for freelance writers who can write well. As a first step, send us details of your particular Mac expertise.

ABOUT MACFORMAT

Welcome again to MACFORMAT, Britain's best-selling Mac magazine! Whether you're a veteran or a novice, we'll help you get more out of your Macintosh, whatever you use it for!

Every month, MACFORMAT brings you tips, techniques and tutorials covering the range of Mac applications, from graphics, DTP, education, spreadsheets and databases to music, comms and games. This month we help you sort out your System, discover the Internet, master those spreadsheets, and more.

We'll bring you features about exciting Mac developments and novel uses, accompanied by cover disk programs whenever possible, so you can discover what your machine can do and try things you mightn't have tried before – like Mac-based image-editing.

We'll keep you up-to-date with all the Mac-related news, and also keep you informed about the wider issues, the people behind the headlines and the stories behind the stories. This issue, we see how Apple is at the heart of a new form of networking across Europe, and bring you more about Apple's newest multimedia machine...

We'll bring you authoritative reviews of interesting and affordable products, with clear buying recommendations. This issue we test the top graphics tablets, a scanner with bells and whistles, a multi-lingual word processor, some remarkable music CDs and much more besides...

MACFORMAT does not review demos or unfinished programs. We review only the finished products you could buy yourself, to help you decide whether to buy or not.

MACFORMAT's covermounted disks and CD-ROMs offer you demos so you can try software before you buy, useful utilities (specially chosen to complement features in the magazine, including over 80 'clip photo' images this month), selected shareware programs, games, readers' contributions and more, every month. This issue's details start page 8.

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ABOUT OUR REVIEWS

Every MACFORMAT review is designed to inform you in detail what you'd be getting if you bought the product and help you decide whether it's worth your money. It tells you the essentials, without jargon. MACFORMAT reviews only finished products, and we rate them on this scale:

- 80+% means excellent.
- 70+% means well worthwhile, though not really outstanding in its market.
- 60+% means good, but with a few shortcomings or some limitations.
- 50+% means acceptable but flawed.
- A rating below 50% means you should think carefully before parting with your money.

The MACFORMAT Classic Award

If a product earns a rating of 90% or more, we'll give it a MACFORMAT Classic Award. This means what it says: we judge the product to be a classic, a standard-setter of its type, something really special.

- We make every effort to verify all the information we publish, but products and prices do change. We always quote list prices (RRPs), but street prices do vary. Shop around, and check with the supplier before buying to make sure that the product you're considering will meet your needs. MACFORMAT cannot accept responsibility for any errors or omissions or for any losses that may arise as a result, but it is our policy to correct any errors of fact whenever we possibly can.
- MACFORMAT welcomes contributions for publication but we regret that we cannot return them. Submissions are accepted on the basis of a licence of copyright to Future Publishing Ltd, exclusive for six months – call for details. We will assume that all correspondence is for publication and all CD-ROM demos or readers' submissions may be incorporated on a Future coverdisk/CD-ROM unless you expressly state otherwise in writing. See also page 37.
- We're snowed under, so we can't reply to mail personally, even if you include an SAE, or to faxes or e-mail. Nor can we answer technical queries over the phone – sorry!

Foul Play

Mystery at Awkward Manor

Something Terrible has happened at Awkward Manor !

A Photo-Realistic Game for the Whole Family
1-6 Players Ages 7+

AN ARMCHAIR TRAVEL PRESENTATION

PRODUCER WILLIAM BECKETT DIRECTOR WILLIAM DONELSON

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Level Ten Prize Drawing

WHEN YOU SOLVE A LEVEL TEN GAME, SEND IN THE ENCLOSED CARD TO ENTER A QUARTERLY PRIZE DRAWING FOR A CHANCE TO WIN A FABULOUS MULTIMEDIA COMPUTER SYSTEM!

(Drawings held in Jan, Apr, July, and Oct each year. Final drawing in Jan 1997)

Void where prohibited

Is that a CD-ROM in your pocket or are you just pleased to be reading the magazine? Derek Smith reveals the contents of yet another bulging MACFORMAT disc...

We bring you a special CD this month with over 75 high resolution photos from the best collections in the world. We also have the complete first level from the *Dark Forces* game, so you can take on the whole of the Empire single handedly. But before you do that, let's take a look at what's on the CD...

- Highlights: aliases of some of the best bits of the CD to help get you started quickly.
- Floppy: contains everything that you'll find on the floppy disk.
- Shareware City: all the best shareware to be released onto the Internet this month.
- Shareware in MACFORMAT: all the shareware and freeware programs reviewed in our shareware section, starting on page 121.
- Clip Photos: sample images from top clip photo collections, so you can test the quality for yourself.
- Demos: interactive and rolling demos of various software featured in MACFORMAT.
- Readers' Corner: your area of the CD featuring programs and art.
- Resources: includes QuickTime 2.0, a database of MACFORMAT reviews, and other utilities.

FLOPPY OR CD?

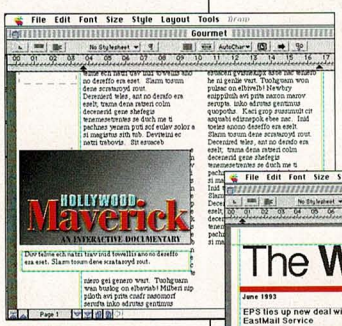
MACFORMAT is available in two editions every month: one with a CD-ROM and one with a high-density floppy disk. The CD contains all the software on the floppy disk in a folder called Floppy. See page 12 for details.

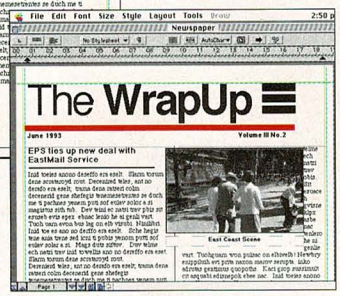
WorldWrite

Word processor demo

Requires: any Mac, System 7.1

WorldWrite is an amazing word processor that is designed to handle any language, even non-Roman texts such as Hebrew or Arabic. But it also acts as a perfectly good word processor in its own right, offering tons of features without becoming bloated like some other word processors we could mention. Our demo version is fully working but you won't be able to save. For a full review, see page 98.



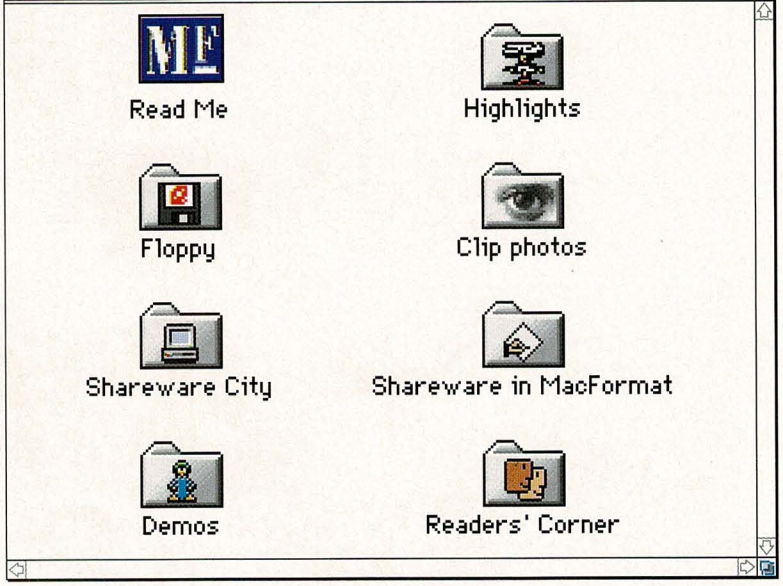


WorldWrite enters the already crowded word processor market. Will its sophisticated language features be enough? Judge for yourself.

MACFORMAT 28

626.9 MB in disk

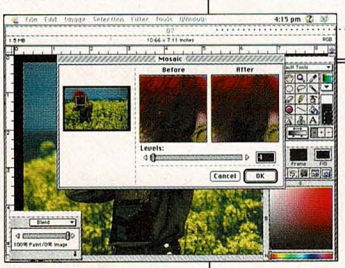
Over 4,000 files of demo shareware, photos, utilities and much much more



Color It!

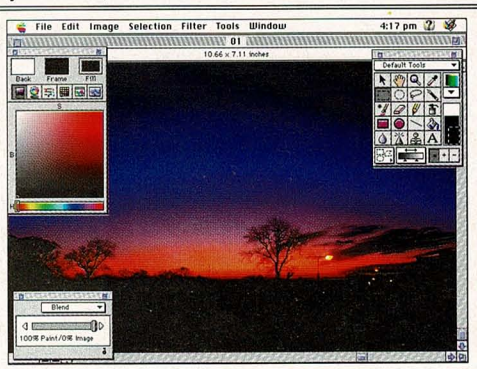
Graphics demo

Requires: LCII, System 6.0.3, colour monitor, 2Mb free RAM



Try your hand at image manipulation with the save-disabled version of *Color It!* and the selection of photos on the CD.

Color It! is the brilliant graphics program from MicroFrontier that delivers most of the features of *Photoshop*, but will run on entry level Macs with 2Mb free RAM. There's a full review of *Color It!* starting on page 52, which includes a walkthrough, giving you an idea of what is easily achievable. Used in conjunction with the photos on the CD-ROM, you have everything you need to try your hand at image manipulation. The version on the CD is fully working, although you won't be able to save or print.



Circle Elements

Music demo

Requires: LC, 2Mb free RAM

Making music is one of the most fun things your can do on your Mac, and *Circle Elements* makes it so easy you'll be bopping away all day. The idea is to place samples in a circular loop which are then played back at a set speed. The demo is fully interactive, although you can only play eight samples and you only get a very limited number of the samples that come with the full product. For a complete review, read our assessment on page 118.

We could make sweet music together, so load up *Circle Elements* and mix the bass.

Dark Forces

Game demo

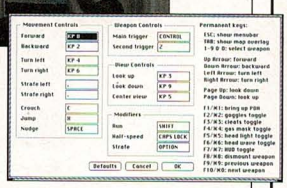
Requires: LC475, 4.5Mb free RAM, colour

If you like games, you are going to love this. You play the role of Kyle, a mercenary working for the rebel alliance in the world of Star Wars. You enter a three dimensional environment where you can walk around and explore, in the fashion of *Marathon*.

The first thing to do is copy the entire folder to your hard disk to ensure the game runs at a decent speed. There are plenty of options for trading graphic quality for speed, but the game is native, so you should have no problems on a PowerMac.

See the screenshot for keyboard controls, but at any time, you can press **[esc]** to pause the game and bring up the menus. I would suggest that you try playing the demo on the medium or hard setting – it makes the challenge more interesting and stops you from completing it too quickly! See how the game fares against our reviewer on page 130.

Making it out alive isn't as difficult as finding the secret rooms.



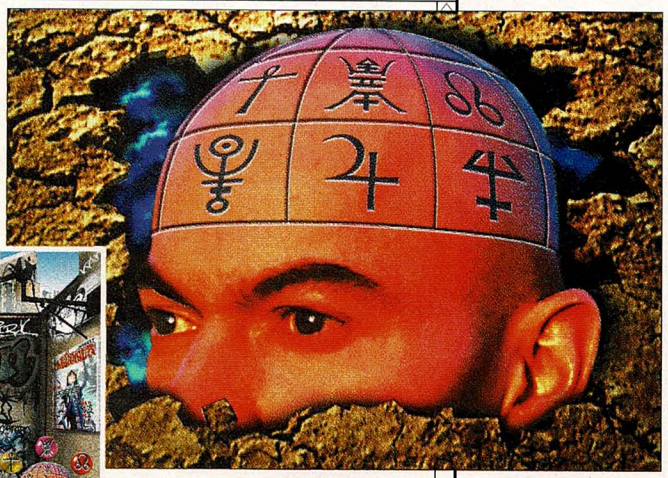
The default controls – you can change them or use a joystick.

UnZip

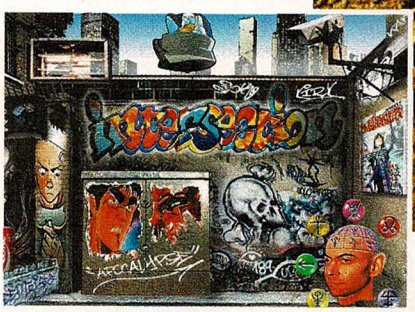
Multimedia demo

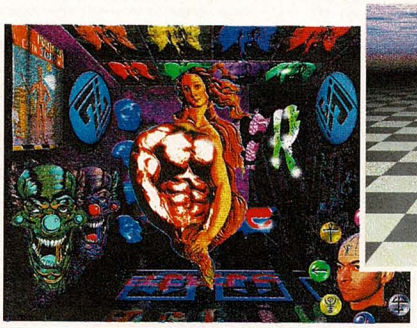
Requires:

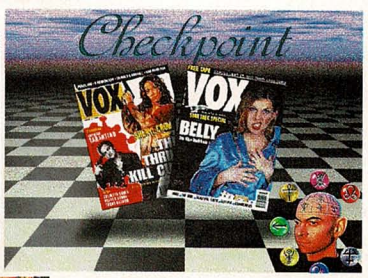
UnZip claims to be Britain's first interactive magazine on CD-ROM, and I think they may just be right. It's produced by magazine publishers IPC, and is based on several of their paper titles such as *VOX* and *New Scientist*. This interactive demo gives you a good idea of how it all works and what it's all about – you can read what our reviewer thought on page 108.



It's a strange world inside this chap's head but it is definitely worth the journey.







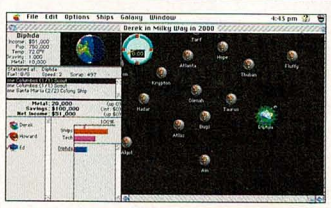
VIRUS? SURELY NOT!

Don't worry if your virus checker gives you a warning about the CD. If you get an alert about an 'unknown strain of WDEF and CDEF', it's not a virus – it's just that we use an unusual Desktop file to ensure the disc works with both Systems 6 and 7.

Spaceward Ho 4.0

Space game demo

Requires: any Mac, System 6.0.7



Space is big. Really big. It may seem a long way to the shops to buy a Douglas Adams book, but that's nothing compared to space.

It's nice to find a space game that doesn't involve frantic blasting of aliens. Instead, *Spaceward Ho* is a strategy game in which you take it in turns with the computer to struggle for the dominance of space – no small task. It's quite a complex game and the demo is a little difficult to get into, so try selecting **Auto Play** from the **Options** menu, or turn to page 134 to read the review and get a better idea of what it's all about. Oh, and good luck.

Readers' Corner

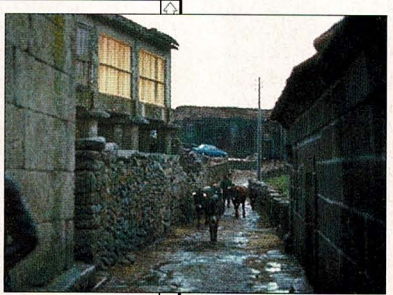
Your contributions

Requires: see individual Read Me files

It's always a pleasure sorting through the tons of contributions to readers' corner each month, especially as we receive so much great stuff. There's some marvellous art from people such as Martin Davey, Henry Milton and Alan Ekland. Probably the most interesting piece of art we have seen was sent in from Ian Gibson, which features a strange invention machine.

In the contributions folder you'll find plenty of *HyperCard* stacks, including a game from Alex Karlsson, a lottery program (yet another!) from Allan Myles, and Steve Stevenson has a bird brain. Really.

Dick Jansson has sent in his collection of icons, as has John Bax, and Edward Pearson's icons have to be seen to be believed! If you're a game player, you may want to check out contributions from Malcolm Gill, Neil Simpson and Gavin Black, while a special thanks is due to Thomas Everett for some great music which can be played by any QuickTime player, including *SimpleText*.



If you fancy yourself as an artist, then why not take this chance to expose yourself!

I WANT YOU

We would love to see any art or software that you have created. Just send it in to Disk Editor, MACFORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW. Any SyQuest disks will be returned.

Clip photo catalogue

On this month's CD-ROM we have a total of 88 digitised photos from the top collections in the world, most of them in high resolution. These pages are a guide to the images on the CD, but for the full head to head review, turn to page 58.

The images are saved in a variety of formats, such as PICT, TIFF and Kodak PhotoCD. You'll need a graphics program to open them, and *Photoshop* is ideal, but don't worry if you haven't got a copy. There was a demo of *Photoshop 3.0* on the MACFORMAT 24 CD that you could use, you can also use the demo of *Color It!* on this month's CD, you can use *GraphicConverter*, which is also on this month's CD, or you could use *CorelMOSAIC*, which you'll find in the Corel folder on the CD.

We'll be featuring more images from some of these collections over the next couple of issues, and next month we'll have some sample images from the Photostectics CD, as well as an entire commercial collection of clip art.

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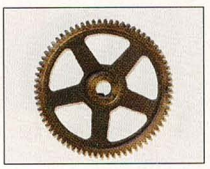
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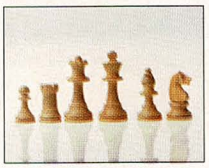
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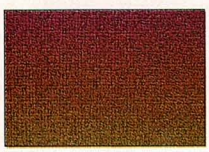
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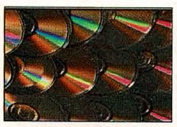
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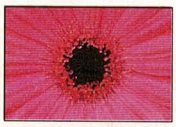
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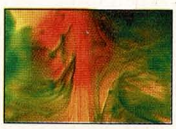
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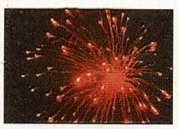
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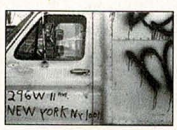
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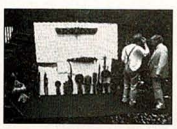
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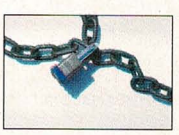
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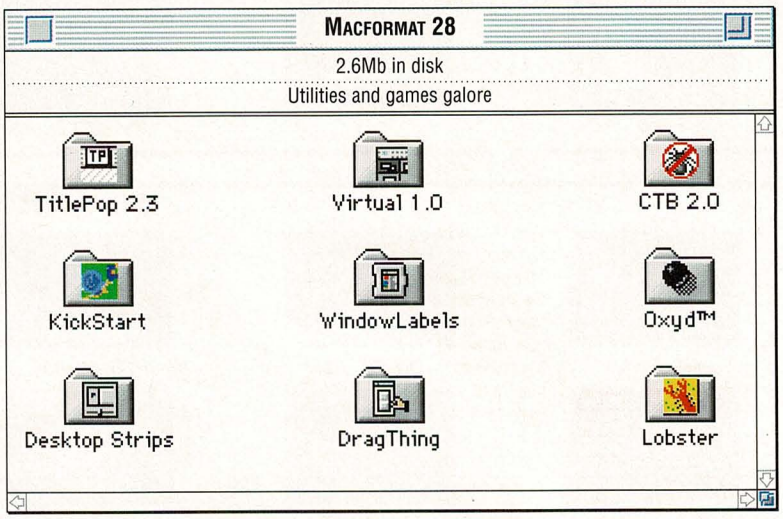
YOUR COVER DISK

The best selling Macintosh magazine brings you the best floppy disk around. Derek Smith reveals the contents of yet another scintillating disk.

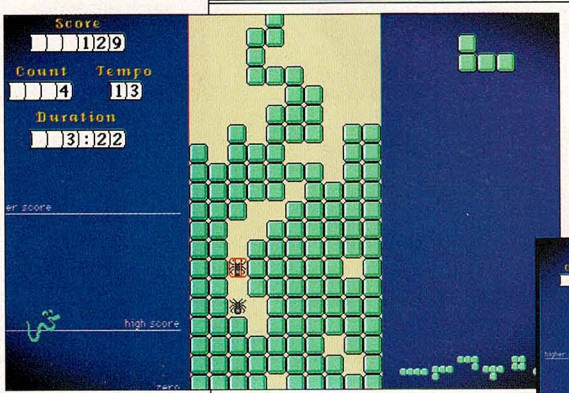
We have some wonderful utilities this month dedicated to making your life easier and saving you lots of time. So what can you do with all that free time? Play the three marvellous games that we've got lined up for you this month, of course!



Catch The Buzz

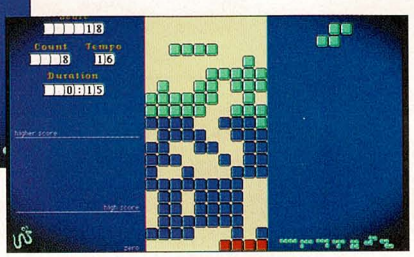
Puzzle game

Requires: any Mac, 800K free RAM



If you thought that *Tetris* was mind bending, wait until you try to catch the buzz!

Tetris is probably the most addictive computer game ever and it has been a while since we had a version on the floppy. This one caught my eye because, as well as playing a good basic game, it also has a feature called 'catch the buzz'. In this mode the challenge is not just to build a wall, but to encase the bug in the wall and kill him. It requires a whole new strategy and gives you two games in one!

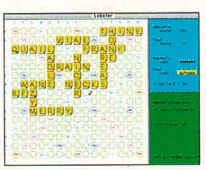


Lobster

Scrabble game

Requires: colour Mac, 900K free RAM

This is the first shareware scrabble game that I have come across and it plays a good game. Operation is simple, despite the lack of mouse controls. When it's your turn, type in a word in lower case. If you have a blank letter, shown as a **[*]**, type in what you want that letter to be as a capital. Press **[return]**, then type where you want to play the word by entering the row letter, column letter, then either **[a]** for across, or **[d]** for down. Press **[return]** and then confirm whether you want to play it or not. Go on, prove that you are smarter than your Mac!



What a minute, what is a 'viae'? Stop cheating and play some proper words that I've heard of, like bunny.

START HERE

High density floppy disks normally contain a up to 1.4Mb of software, but to bring you as much as possible, we use a compression program to fit more on. So you need to decompress the software before using it – you'll need 2.6Mb of hard disk space. We also recommend that you make a backup of the MACFORMAT cover disk, just in case anything goes wrong. Here's what to do...

1 Ensure the original cover disk is write-protected (move the tab so that you can see through the hole).
2 Insert the MACFORMAT disk.
3 Drag the disk's icon over your hard disk's icon.
4 The contents are copied onto your hard disk, but are still compressed and cannot be used yet.
5 Drag the cover disk icon to the Wastebasket to eject the disk.
6 Insert a blank high density disk.
7 Drag the MACFORMAT 28 folder from your hard disk onto the blank disk's icon to make your backup.

To decompress the cover disk, open the MACFORMAT 28 folder on your hard disk.

1 Double-click on the MACFORMAT 28 icon.
2 Click **Continue**.
3 A box then asks you where you want to save the software. Choose the place on your hard disk where you want everything stored and click **Save**.

Before installing the cover disk, we always recommend that you back up any important work on your hard disk. This precaution will avoid problems should any of the software not be compatible with your setup. We make every effort to check our disks for compatibility and viruses, but the information here is intended as a guide only, and MACFORMAT cannot be held responsible for any damage to data, any inability to use this software or any resulting losses. So please, take the precaution of backing up first.

OLD FAVOURITES

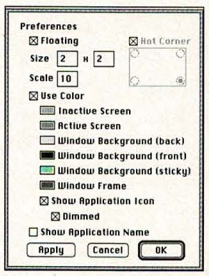
Write in and tell us about any shareware that you would like put on the floppy, or any old favourite software that you have and think deserves more recognition.

Virtual 1.0

Desktop utility

Requires: System 7.1, colour monitor

I'm very happy with my 14-inch monitor, but there are times when I could do with some more real estate. *Virtual* gives you a floating palette that gives you as many Desktops as you want. When you first launch it, you will see a mini view of your current Desktop and all its windows in the top left quarter. Click on another quarter and you have a clean Desktop with no windows, enabling you to set that one up differently. Het presto, lots of real estate.



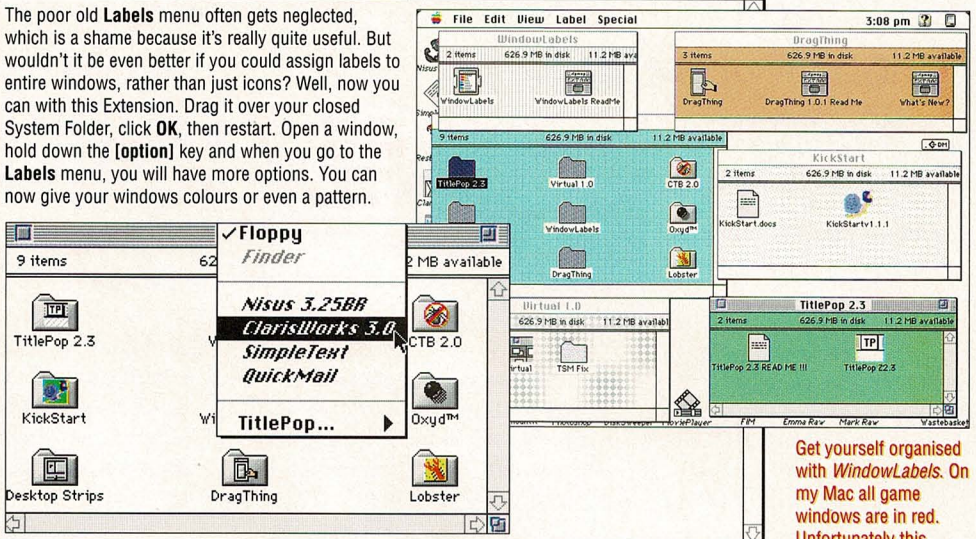
Select *Virtual* from the **Application** menu in the top right corner, choose **Preferences** from the **File** menu, and you can set up the program to your own requirements.

WindowLabels

Utility

Requires: System 7

The poor old **Labels** menu often gets neglected, which is a shame because it's really quite useful. But wouldn't it be even better if you could assign labels to entire windows, rather than just icons? Well, now you can with this Extension. Drag it over your closed System Folder, click **OK**, then restart. Open a window, hold down the **[option]** key and when you go to the **Labels** menu, you will have more options. You can now give your windows colours or even a pattern.



Get yourself organised with *WindowLabels*. On my Mac all game windows are in red. Unfortunately this means my Mac is now running very low on red paint.

DragThing

Utility

Requires: System 7.5, LC or better

System 7.5 has introduced several great new features, one of which is drag and drop. In combination with *DragThing*, you can drag any Desktop items, such as folders, disks and applications, onto a floating palette, giving you instant access to them. If you don't need *DragThing*, simply quit the program, and when you next open it up, all your items will still be there.

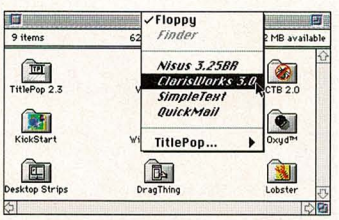
DragThing gives you instant access to your most commonly used items, wherever they lurk.

TitlePop 2.3

Utility

Requires: System 6.0.4 or later

This excellent freeware program enables you to switch to any program or window, by clicking on the name part of the title bar of any window. This produces a pop up menu, and you just select the program or window required. Of course, the same part of the window is used by System 7 to enable you to move backwards through nested folders. What you do is press **[command]** and click on the name of a window. But don't worry, as soon as you press **[command]** to access this feature, *TitlePop* deactivates itself!



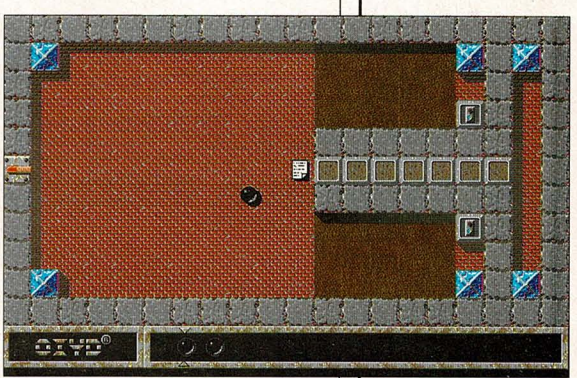
Blimey and gosh, I'm now so efficient with all these utilities that I finish my work before I even turn up in the morning.

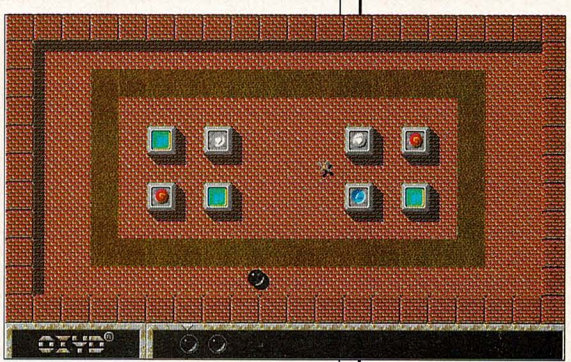
Oxyd

Game

Requires: any Mac

Oxyd is a simple but addictive game in which you control a marble on the screen using the mouse. Guide him round the screen, avoiding deadly quicksand and perilous pits. Your tasks are to uncover the hidden shapes that lie beneath the pyramids by crashing into them, or firing laser beams at them. You then have a limited amount of time to match it with its identical twin beneath another pyramid. It may sound easy, but with 200 levels, it should take you a while.





Accurate mouse control is called for in *Oxyd*, but beware, some screens reverse the mouse directions!

FLOPPY TOO

We are always on the lookout for readers' contributions for the floppy as well as the CD, so don't be put off just because you don't have a CD-ROM drive. Send them in to the address on page 6.

GOT A PROBLEM?

If the cover-mounted high density disk or CD-ROM you have is defective, return it to us and we will replace it. Please make sure you have followed the installation procedures described in these pages correctly, to ensure that there is a physical problem with the disk itself. Otherwise, the replacement will be just the same!

Return HD disks to:
Discopy Labs
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Return CD-ROMs to:
MACFORMAT CD returns
Future Publishing
FREEPOST (BS4900)
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TA11 6BR

Enclose a self-addressed padded envelope (but we'll pay return postage) with the disk or CD, and a description of the fault. Please do not return disks or CDs to the editorial office; we don't hold any stocks of them and can only refer you to the addresses above.

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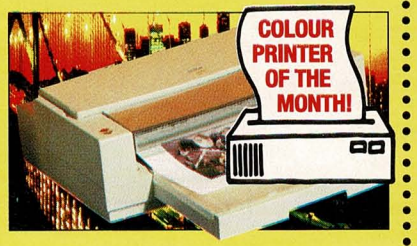
Epson Stylus Pro XL

Super A3, 720dpi, Postscript Level 2



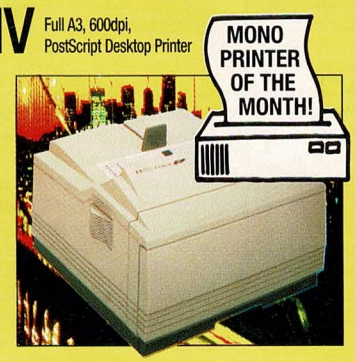
The new Epson Stylus Pro XL saves time and money with its excellent 720x720dpi output and paper handling up to Super A3 (up to 329 x 483mm). You can output full-size mock-ups in all sizes up to A3, but the Epson Stylus Pro XL is just as outstanding on everyday A4 work. A wide range of output materials are available including coated and gloss papers and overhead transparency film.

With its 720x720dpi advanced piezo printhead technology together with the sophisticated Epson MicroDot ink delivery system, the Stylus Pro XL enables high definition colour printing - photo-realistic images or bold graphics, subtle tonal gradations or consistent solids - can be achieved cost-effectively. The Epson Stylus Pro XL has clear, intuitive control panels and couldn't be easier to operate and comes with Parallel and RS422 as standard with Ethernet, LocalTalk, Coax and Twinax as options.

Epson Stylus Pro XL.....£1525

HP LaserJet 4MV

Full A3, 600dpi, PostScript Desktop Printer



The new 16ppm HP LaserJet 4MV sets a new standard for workgroup printing, offering A4/A3 paper size printing and the most advanced printer management capabilities. With true 600dpi resolution, HP's Resolution Enhancement technology (see panel) and micro-fine toner, the HP LaserJet 4MV gives outstanding performance - even on scanned photos with 120 levels of grey at 106lpi from HP PCL5 Windows printing or 122 levels of grey at 106lpi in PostScript. The HP LaserJet 4MV is fast too! A 16ppm engine with a cached 33MHz RISC processor offers unmatched speed and versatility.

HP LaserJet 4MV.....£2099

COLOUR PRINTERS

A4 COLOUR INKJET

Apple StyleWriter 2400 .....£375
360dpi, BW: 3ppm, Col: 3ppm, Serial

HP 660C.....£365
600x300dpi colour, Col: 1ppm, BW: 4ppm, Serial or Parallel

Epson Stylus Pro £369
720dpi, BW: 3ppm, Col: 1.5ppm, Parallel & Serial

HP 850C..... BEST BUY! £429
300x300dpi col, Col: 3ppm, BW: 6ppm, Parallel & LocalTalk

Tektronix 140.....£899
PostScript, 8Mb, 360dpi, 1ppm, Parallel & LocalTalk

HP 1200C/PS.....£1065
PostScript, 4Mb, 300dpi colour, 4 carts., BW: 7ppm, Col: 1ppm, Parallel & LocalTalk

HP 1600CM.....£1355
PostScript, 6Mb, Col: 300dpi & 4ppm, BW: 600dpi & 8ppm

A3 COLOUR INKJET

Epson Stylus Pro XL BEST BUY! .£1525
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Lexmark PS4079Plus £2445
PostScript, 8Mb RAM, 1.5ppm, Serial, Parallel & LocalTalk

A4 COLOUR LASER

Apple Colour L/W 12/600PS ...£4850
PostScript, 12Mb RAM, 600dpi, BW: 12ppm, Col: 3ppm, all interfaces

QMS MagiColour LX BEST BUY! £5435
PostScript, 600dpi, 24Mb RAM, BW: 12ppm, Col: 6ppm, 80Mb HD, Serial, Parallel & LocalTalk, Includes free on-site install and 1 Year On-Site Warranty

Tektronix Phaser 540Plus.....£6070
PostScript, 600dpi, 20Mb RAM, BW: 14ppm, Col: 3.5ppm, Parallel & LocalTalk, includes start-up kit

A4 (OVERSIZE) COLOUR DYE-SUBLIMATION

Tektronix 440 PS £5295
PostScript, 300dpi, 16Mb RAM, BW: 1ppm, Col: 2-3ppm, Parallel, Serial & LocalTalk

Kodak XLS8600 .. BEST BUY! ...£6130
PostScript and Raster, 300dpi, 32Mb RAM, 75 sec. per print, Parallel & LocalTalk

A3 (OVERSIZE) COLOUR DYE-SUBLIMATION

Tektronix 480 XB.....£12,125
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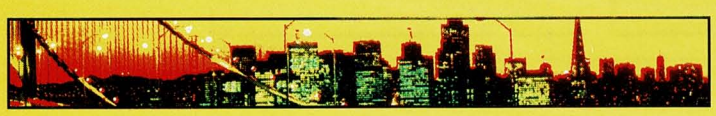

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HP DeskWriter 540.....£239
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3 Year On-Site Warranty £40

TI MicroWriter PS23.....£485
PostScript Laser, 300dpi, 5ppm, 2Mb RAM, 250-sheet tray, Parallel, LocalTalk
3 Year On-Site Warranty £240

A4 MONO INKJET / LASER FOR HOME USERS / SMALL OFFICE

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3 Year On-Site Warranty (8 hour response).....£240

Apple Select 320 .....£625
PostScript Laser, 300dpi, 4ppm, 2Mb RAM, 100-sheet tray, LocalTalk

Hewlett Packard 5MP.....£779
PostScript Laser, 600dpi, 6ppm, 6Mb RAM, 250-sheet tray, Parallel & LocalTalk
3 Year On-Site Warranty £135

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DEC 3500F £1549
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Apple 16/600PS £1599
PostScript, 600dpi, 16ppm, 8Mb, Parallel, Serial, Ethernet

Lexmark Optra.....£2599
PostScript, 1200dpi, 12ppm, 10Mb RAM, Ethernet

HP 4Si/MX..... BEST BUY! £3199
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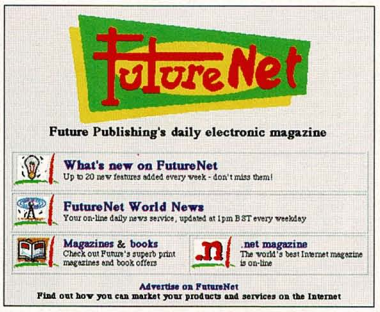
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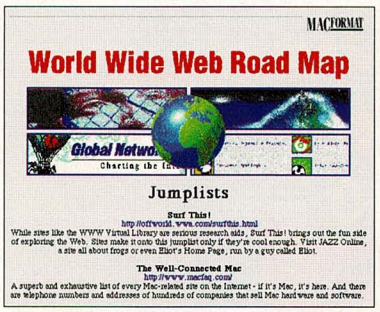
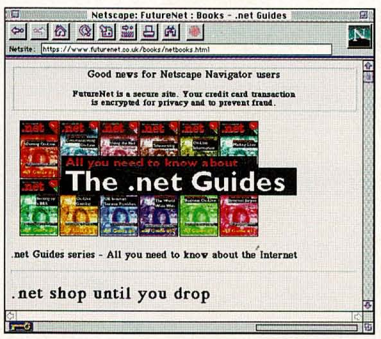


You can explore the Web with MACFORMAT – the Road Map has dozens of links to useful sites. You'll find it on our home page on FutureNet.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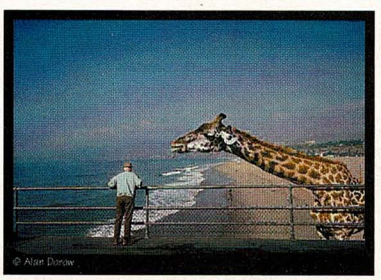

You can take a look at a gallery of photographer Alan Dorow's image trickery without leaving the room. It's in the Picture Conversion gallery.

Think of this page as your further reading list. You can now use MACFORMAT's pages on FutureNet – Future Publishing's on-line service – to visit sites that can give you more information on some of the topics we look at this issue.

To be able to use these links, you'll need a World Wide Web connection – see our current series for details of what you need and what else you can do once you're connected to the Internet. The second part is on page 73.

We've also included a couple of new jumplist addresses – these are sites with loads of pointers toward other Mac-related areas. All the links join the dozens already available on MACFORMAT's Web pages.

And we've put in a link for each of the Web addresses that are listed throughout the issue – including the Web sites of each of the service providers listed in our Internet series. Look for these in the Computing area of the Road Map.

Each time someone looks at a page or image on the Web, it's called a hit – and FutureNet now gets over 500,000 hits a week! **RICHARD HILL**

MACFORMAT's on the Web! Now you can use a modem and your Mac to read all of Future's magazines, including us, on-line. Plus: visit some of the top Web sites on the Internet.

Getting connected

All you need to connect to FutureNet is a modem and an Internet account like Demon or CityScape, or a direct server connection. There are no hidden charges – FutureNet is absolutely free!
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LINKS FOR THIS ISSUE

You can visit each of these sites by typing its address (immediately below the title) into your Web browser. Or you can go to the World Wide Web Road Map section of MACFORMAT's pages on FutureNet. There you'll find direct links to each site and many others. This issue's links will stay on our pages at least until Friday 3 November.

Art & Entertainment

Discovery Channel Online
http://www.discovery.com/
The makers of *How Animals Move* and dozens of TV programmes present a rich site with daily real life stories of adventure and exploration.
How Animals Move review, page 102

The LucasFilms Archive
http://bantha.pc.cc.cmu.edu/
A semi-official site focusing on the films and games industry that has grown out the characters of George Lucas – *Star Wars*, *Indiana Jones* and more.
Dark Forces review, page 130

Zion Train
http://www.demon.co.uk/drci/zion-train/index.html
As well as a new album and CD, this dance music group also have a Web site with discussions on underground politics and bizarre trivia.
Homegrown Fantasy review, page 110

Computing

The International Mac
http://www.austin.apple.com/macos/tech/intl/intlover.html
Apple have a Web site devoted to technical information about their computers. Here you can find out about the technology that enables the Mac to display non-Roman alphabets like Japanese and Chinese.
WorldWrite review, page 98

Design & Graphics

Picture Conversion
http://www.picture.com/
This company offer all sorts of scanning and picture processing facilities – and their Picture Gallery section includes work by Alan Dorow, a photographer who uses image editing techniques to humorous effect.
Image editing feature, page 42

Web F/X
http://www.indirect.com/www/webfx/
One of the many companies that are sprouting up to offer professional-quality graphics for designers over the Web. Take a look at the impressive samples – produced on the Mac and other computers.
Image editing feature, page 42

Yahoo: Pictures
http://www.yahoo.com/Computers/Multimedia/Pictures
One of the Web's foremost jumplist sites presents a list of clip art and photographs you can download from the Web.
Picture this! page 58

Jumplists

Everything Macintosh
http://www.cs.brandeis.edu/~xray/mac.html
A thorough index to Mac sites both on the Web and on other parts of the Internet – including Mac user groups, a company A-Z and resources for programmers.

The Ultimate Macintosh
http://www.freepress.com/myee/ultimate_mac.html
This Mac index includes newsgroups, general information sources, electronic Mac publications and even a list of other indexes.

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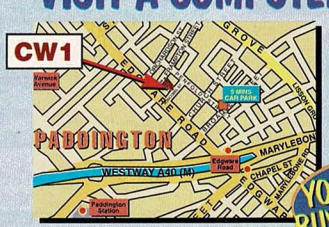

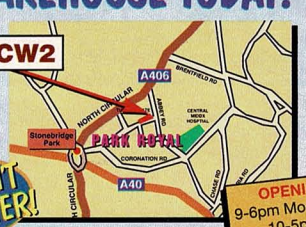

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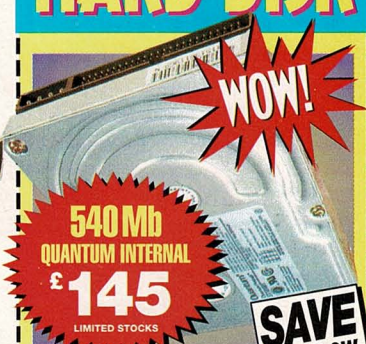

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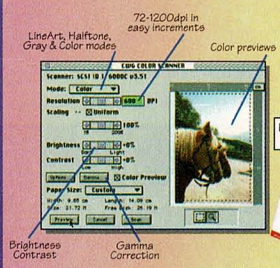

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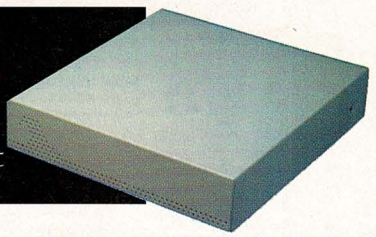

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MACFORMAT NEWS

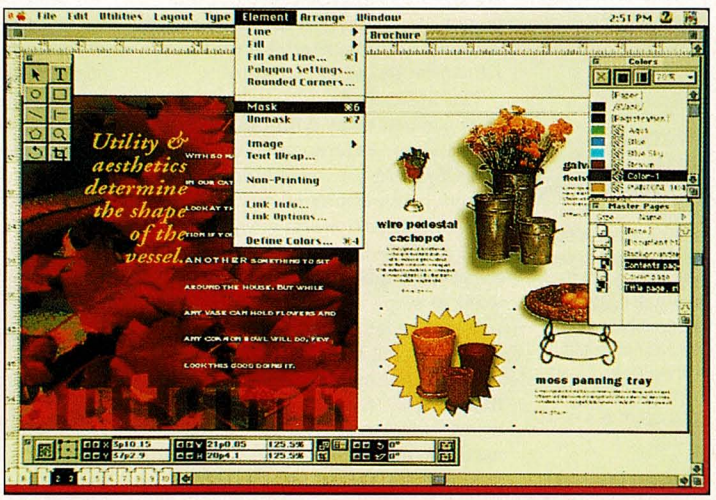
PageMaker revamped; great PowerBook upgrade offer; the cost of using the Internet falls. News Editor: Richard Hill.

New PageMaker takes on XPress

The latest version of top desktop publishing program *PageMaker* goes on sale shortly. Adobe intend the new set of features in the program to rival those of its competitor *QuarkXPress* more closely. There'll be an improved colour system, controls for creating HTML pages for publishing on the World Wide Web – and you'll be able to create several master page styles in the same document for the first time.

PageMaker was previously published by Aldus; the first brand new version to arrive under the Adobe name reflects the close ties with other Adobe programs, which you can expect to be developed in the future. *Photoshop*-like image editing features are to be added, while you'll also be able to save pages as PDF (Portable Document Format) files. Anyone who has a copy of Adobe's *Acrobat Reader* program can read PDF documents directly on their Mac screens.

The price of *PageMaker 6.0* is yet to be set, but don't expect it to be more than the current average of £605. If you buy a copy of *PageMaker 5.0* before version 6 is available – or you have bought it since Monday 17 July – you can ask for a free upgrade to the new program. Upgrades after the new version 6 goes on sale will cost around £115.



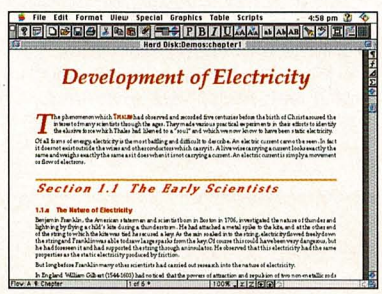
The first Adobe-made version of *PageMaker* is the most powerful yet, with a flurry of new features.

Master plan

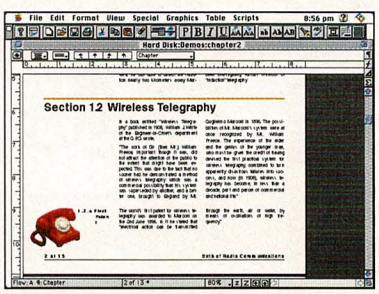
The *PageMaker* release is part of wider moves by Adobe to have more say in the electronic publishing arena – the growing part of the publishing industry that's concentrating on computer formats rather than traditional paper. Adobe want PDF and their *Acrobat* programs to become a standard for pages on the World Wide Web and for exchanging documents between individual computers.

As part of this move, Adobe are buying Frame, a company best-known for their *FrameMaker* publisher program. Frame enjoy a position in the industry that means they are able to sell to a lot of Internet-related firms. Adobe believe using Frame's own ideas and giving PDF a stronger role in Frame's programs will improve their chances of becoming the dominant name in electronic publishing.

■ For more about *PageMaker 6.0*, contact Adobe Direct on 0131 451 6888.



Adobe are following their purchase of Aldus last year by buying the creators of *FrameMaker*.



Frame's programs have a lot of influence in electronic publishing – which is ideal for Adobe.

COMPUTER BOOM

In a far reaching survey, American research firm Dataquest are predicting that sales of personal computers will double by 1999. They forecast a landmark 100 million sales in that year, compared with 48 million in 1994.

Apple boss on new direction

Apple executive Michael Spindler has been speaking about the recent changes of direction and emphasis within Apple. As we reported in MACFORMAT 25, Apple are to concentrate on areas like multimedia and the home and education markets, as well as traditional strongholds like publishing. Spindler told journalists in the United States: 'We don't want to be simply throwing Macs out there to do office work.'

Saying that 'the Mac is by definition a multimedia machine', Spindler believes Apple shouldn't try to make the Mac all things for all people – just another computer. 'This isn't diapers or soap', he said of selling computers. 'We need to make computers that better understand their users.'

Spindler reiterated Apple's efforts to overcome the shortage of parts that is besetting the entire industry – at a time when there is more demand for Macs and other PCs than ever (see the 'Computer boom' margin note on this page). This means you should find it easier and quicker to buy the Mac you want over the coming months.

20 Million Macs!

There are now more than 20 million Macs being used worldwide, according new figures from Apple. This means there are twice as many Mac owners out there as there were just three years ago. Apple also reckon they've sold over 2 million PowerMacs since the new machines were launched in March 1994.

Write a music CD

Macromedia are joining software firm ION to produce software that should make it easier to create hybrid CDs – discs with traditional music content and computer programs sharing space. Expect more music CD-ROMs to come out as a result.

Apple Number

In last issue's free *World Wide Web Road Map* guide, we gave you a phone number to call for details of Apple's MacTCP Control Panel, which you need to get onto the Internet with your Mac. But there was a digit missing! You can call Apple on 0800 127753.

Mac programs scoop awards

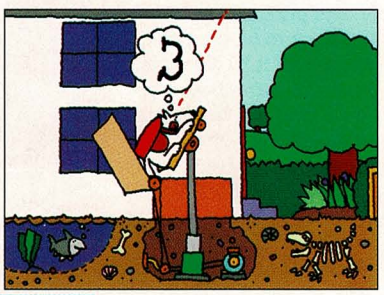
Programs written for the Mac enjoyed a prominent role in this year's British Interactive Multimedia Association Awards. The annual presentations recognise innovation in a number of categories, from entertainment and education to industrial training.

The Multimedia Corporation's *3D Atlas* romped away with the Macromedia Home Reference Gold award. The CD-ROM title, which has been bought by an estimated 500,000 Mac owners, uses maps and globes as a book would – but you can control and adapt the maps according to what you want to see.

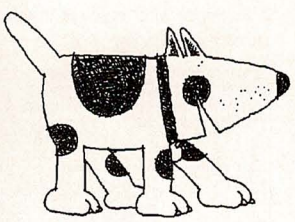
It was so far ahead of the field that the judges felt unable to give a runner-up Silver to any program. They said that *3D Atlas* 'moves beyond the "electronic book" metaphor and offers users the opportunity for a real multimedia exploration.' *3D Atlas* received a MACFORMAT Classic 94% rating when we reviewed it in issue 21.

And Domestic Funk Products' *PAWS* took on all comers to receive the Gold for the New Media Children's Award. In this CD-ROM you take a dog's eye view on the world, exploring a surreal cartoon garden.

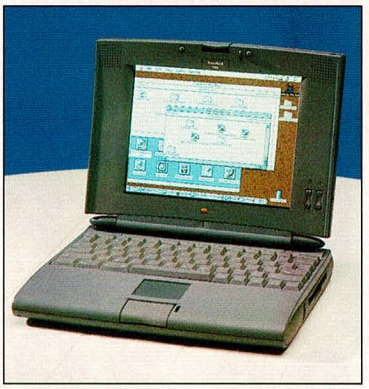
The judges praised *PAWS* for 'daring to be rude, cheeky and playful, as well as thought-provoking and visually intriguing'. *PAWS* also received a Classic rating in MACFORMAT 22 with a 90% review.



The firms behind *3D Atlas* (left) and *PAWS* (above and below) add more trophies to their already-heaving mantelpieces.



Free PowerBook upgrade offer



If you're thinking of buying a PowerBook 540, you'll get more Power than you bargained for.

New portable Macs based on the PowerPC chip are due soon, but if you buy a 500-series PowerBook now, you'll be entitled to a *free* upgrade to PowerPC when they become available.

If you buy a PowerBook 520c or 540c by Saturday 30th September, you'll be given a voucher that means you can have an upgrade board, which will upgrade your new purchase to PowerMac levels, at no extra cost.

The board is due to be released in September, but anyone who has the voucher will be first in line to have the board fitted for them. And if you've bought either of these machines since Friday 26 May, you'll still qualify for a voucher as long you've kept your receipt.

The board features a 603e chip – an improved version of the chip in the new Performa 5200 and 6200 desktop Macs – and comes with an extra 4Mb of RAM for running demanding PowerMac software. Its price after the offer ends hasn't been announced.

For more details on the offer, call Apple on 0800 127753.

MacDIARY

MACFORMAT's guide to what's happening around the world of Macintosh.

If you have an event or exhibition involving Macs that you'd like to be mentioned here, let us know! Our contact details are on page 6.

■ Digital Express
Where: f.Stop Gallery, Green Park Station, Bath.
When: now until 19th August.
What: a multimedia exhibition of work created on Macs by students of the Newport School of Art and Design. See the Interactive Arts folder on MACFORMAT 25's CD-ROM for a taste of the work on show.
Price: free.
Contact: f.Stop Gallery on 01225 316922.

■ The Nature of History
Where: the Natural History Museum, Cromwell Road, London.
When: now until 28th August.
What: an interactive exhibition about evolution – Macs were used to create some of the material and special effects. Video and computer material charts the development of life on Earth. You may be selected as a 'trigger' visitor – your progress around the gallery will be tracked and you'll set off changes in the surroundings as you enter different areas.
Prices: adults £5.50; children £2.80 (free if under five); concessions £3.00; family (two adults, two children) £15.00. Includes entry to rest of museum.
Contact: the Natural History Museum on 0171 938 9388.

■ Macworld Expo
Where: Boston, United States.
When: Tuesday 8th August to Friday 11th August.
What: the biggest Mac show of the summer. Companies including Apple, Microsoft and Adobe will show new machines and software. There'll be special sections for programmers, scientists and user groups, and conferences on design, the Internet, multimedia, education and business.
Prices: $40 for exhibition, $150 for exhibits and conference. International surcharge $45.
Contact: Mitch Hall Associates on 00 1 617 361 2001.

■ Centre for Electronic Arts MA Degree Shows
Where: the Candid Gallery, 3–5 Torren Street, Islington, London EC1.
When: Saturday 23rd September to Tuesday 26th September.
What: an exhibition of work by Middlesex University's class of '95 – the graduating students of the MA courses in Design for Interactive Media, Computing in Design and Computer Integrated Publishing. There'll be lots of innovative and exciting ideas produced on Macs on show.
Price: free.
Contact: the Centre for Electronic Arts on 0181 362 5027.

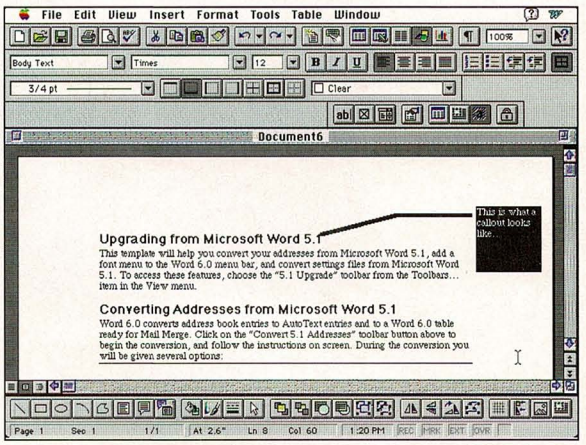
Microsoft set up new Mac hotline

Microsoft have set up a technical support line specifically for anyone who uses their Mac software. In the past, you'll have had to compete with calls from users of programs written for the Windows operating system for attention. The service is already up and running.

Microsoft software accounts for the lion's share of the Mac market, with *Word* the best-selling word processor in the world and *Excel* now the only stand-alone Mac spreadsheet program.

Microsoft say there's a team catering specifically for Mac problems, whether you're using business software like their Office suite of programs – including *Word* and *Excel* – or are having difficulties with one of their reference or education CD-ROMs.

The phone number for the support service is 01734 271580 – or e-mail them at MSUKMAC@Microsoft.com. Using the service involves paying a fee – you get a 90 days trial for free, then it costs £205.63 a year. This covers 35 of what Microsoft call incidents – specific problems that may take several phone calls to sort out in extreme cases. If the problem is down to a bug in the program or is Microsoft's fault in some other way, the incident is not added to your tally of 35 for the year.


File Edit View Insert Format Tools Table Window
Document6
Upgrading from Microsoft Word 5.1
This template will help you convert your addresses from Microsoft Word 5.1, add a font menu to the Word 6.0 menu bar, and convert settings files from Microsoft Word 5.1. To access these features, choose the "5.1 Upgrade" toolbar from the Toolbars... item in the View menu.
Converting Addresses from Microsoft Word 5.1
Word 6.0 converts address book entries to AutoText entries and to a Word 6.0 table ready for Mail Merge. Click on the "Convert 5.1 Addresses" toolbar button above to begin the conversion, and follow the instructions on screen. During the conversion you will be given several options.

Having problems with *Word*? You can get assistance with all of Microsoft's programs on a hotline that's been set up especially for you.

Internet costs plummet

The Internet is becoming cheaper to use than ever, as the cost of using service providers and buying modems tumbles.

Demon Internet, one of the oldest established firms to offer you Internet access through their machines, are planning a huge expansion of the number of connection points they offer by the end of August. This will mean that people living across an estimated 78% of the country will be able to connect to Demon and cruise the Net for the price of a local phone call (plus Demon's own subscription fee). Other companies are following suit – see our feature on page 73 this issue for the lowdown on service providers.

Local calls through British Telecom at weekends are now down to just 1p a minute, giving an hour's Net access for 60p. And the growth of cable phone lines, which typically give free local calls, should make access to the Net cheaper still.

Meanwhile eWorld, Apple's own on-line service, now offers a route to the Internet as well as its own pages. A new version of the *eWorld* software, which enables you to get onto the World Wide Web and other popular areas of the Net, is being given free to subscribers. And soon the program will also come free when you buy a new Mac.

Access to eWorld should speed up with the addition of computers in Europe with the contents of the service stored on them. Currently, when you use the service you connect to machines in the United States.

At the same time, Apple are encouraging users of AppleLink, their previous on-line service, to switch over to eWorld. All Apple staff are expected to have moved across by the end of the year and Apple hope other users will join them.

Psion Systems

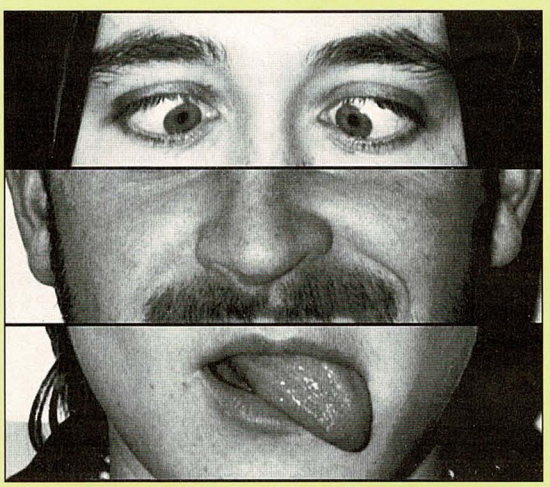
The phone number given for Psion in last issue's feature on portable organisers should have been 0171 258 7368. Apologies for any inconvenience.

Chinese Mac

The Chinese Government is expected to invite Apple to manufacture Macs within the country. Strict laws make China a difficult market to break into, but the one-billion-strong population offers huge opportunities.

■ Apple Expo '95
Where: the Grand Hall, Olympia, London.
When: Wednesday 8th November to Saturday 11th November.
What: Britain's biggest Mac show of the year. Exhibitors should include all the big Mac companies, including Apple themselves, showing the latest hardware and software. There are traditionally show bargains from retailers, and also a huge selection of seminars and workshops, while the Pre-Press Forum will show how the Mac is fully involved in the publishing process.
Price: free if you call for a ticket by Friday 27th October, or £10 on the door.
Contact: the Apple Expo Hotline on 0181 984 7711.

■ Computer Graphics Expo '95
Where: Wembley Conference and Exhibition Centre, London.
When: Tuesday 28th November to Thursday 30th November.
What: a graphics show, conferences and animation festival under the same roof. Exhibitors include Avid, Alias, Softline and Elastic Reality. Plus the Interactive Entertainment Development Forum; the Broadcast Design Association Conference; the Computer Art & Design Contest; the London Effects & Animation Festival and much more.
Price: free if you register by Friday 3rd November, or £10 on the door.
Contact: Digital Media on 0181 995 3632; or e-mail digmedia@atlas.co.uk



Faces by Vassilis Mallis, an interactive mix-'n'-match, is one of the projects by the Middlesex MA students.

WHAT'S NEW

From cut-price 3D graphics to the highest of high-end colour printing, MACFORMAT's product news section has the latest gear and news of some hot games. Compiled by Richard Hill.

AddDepth 2

The new version of Ray Dream's low-cost 3D graphics program, out now, includes extra help if you want to create designs with as little fuss as possible. The *AddDepth* Wizard enables you to follow simple steps to make a design from scratch or use one of over a hundred templates as a starting point.

As the name suggests, *AddDepth* is a program for taking 2D illustrations and adding depth to them. Version 2 now offers more options for the programs you can import files from, including *Illustrator* and *FreeHand*.

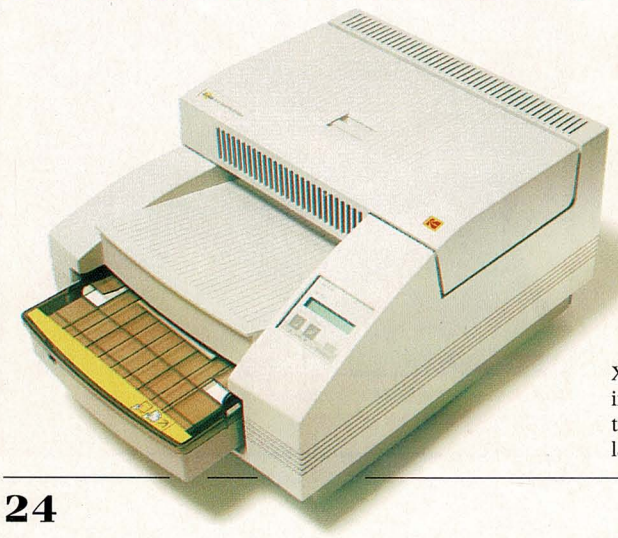
AddDepth comes with CD-ROM and floppy disk versions in one box – the CD-ROM has 30 fonts and 200 pieces of clip art. Other new features include the ability to show your work as a simple wireframe, to speed up the design process on slower Macs.

Construct 3D models easily and view them from any angle with the new version of *AddDepth*.

Distributors Principal say selected dealers are offering *AddDepth 2* for only £46.95 until Saturday 30 September.

- **Price: £70.44.**
- **Out: now.**
- **Requires: LCII or better with System 7, 5Mb of RAM (8Mb for PowerMac) and 14Mb of hard drive space if installing clip art and fonts.**
- **For more details contact Principal on 01706 832000.**

Kodak XLS 8600 printer



Colour printers are becoming more widespread within businesses as the price of the technology continues to fall. The Kodak 8600 range is the latest designed to appeal to companies like printing bureaux and other professionals in the design industry, who demand near-photographic quality in their printing and have the money to afford it.

There are two printers – the £8,170 XLS 8600 PS can produce standard images or print PostScript files used in the likes of *QuarkXPress*. The XLS 8600 lacks the PostScript option but costs £7,580. Both can print full bleed on A4 paper (covering the entire sheet with colour) or make transparencies of up to 8 by 12 inches.

The thermal dye printers can produce detail at 300 dots per inch, and include SCSI connections for networking (the PS also has LocalTalk, the standard Mac network system). *Photoshop* plug-in programs are also included to speed up printing of images.

- **Price: from £7,580. Out: now.**
- **Requires: LCII or better, System 7.1 and 4Mb of RAM.**
- **For more details contact Kodak on 01442 845228.**

NEW FOR THE MAC

PCI graphics

The XCLAIM GA card is the first from the ATI company to take advantage of the PCI slot found in Apple's fastest ever PowerMac. The 9500 will include PCI as a standard feature, meaning cheaper and faster add-ons. (See News last issue for more.)

The XCLAIM cards are designed to increase the number of colours your PowerMac can show and the amount of detail you can have – all drawn on-screen at faster speeds. The two models differ in the amount of memory they have. The £387 2Mb graphics accelerator card enables your PowerMac to display 16.7 million colours at 832 x 624 screen pixels. The more expensive £528 4Mb version increases the detail to 1,152 x 870 dots.

ATI claim that programs like *Photoshop* can redraw images up to eight times faster with the card fitted. For more details contact distributors Taxan on 01344 484646.

HoTMetaL

HoTMetaL Pro 2.0 is an enhanced version of a free HTML editing program. HTML is the language used to create pages that can be shown on the World Wide Web area of the Internet. The *Pro* program can import files from word processors like *Word* and *WordPerfect* and convert them to HTML – or you can start from scratch with the built-in editing facilities. Watch for a feature on paperless publishing in MACFORMAT 30.

You can try the free version by using your Web browser or ftp program to fetch it from the address ftp://doc.ic.ac.uk/pub/package/WWW/ncsa/html/hotmetal. *HoTMetaL Pro 2.0* costs £199. For more details contact Viatec Software on 01276 684506.

Secure your Mac

It's estimated that 20% of all burglaries now involve computers – whether it's taking the whole machine or opening the case and taking chips or other parts. Boxx Security have started to make cases designed to prevent theft. They have been producing cases for the firearms market, where weapons are required to be kept under lock and key, for years.

The Computerboxx comes in two sizes at £175 and £195 respectively. Boxx claim you should be able to fit most types of Mac into one of these. The cases are made of steel and hide your Mac completely – you can then bolt the case to a table or to the floor. For more details contact Boxx Security on 01494 558181.

ColorDrive

Pantone, well known for their colour charting systems and tools used by many designers, have announced *ColorDrive*. You can use this £176.20 program to create colour palettes that can be used by any major graphics program, meaning you don't have to spend time making sure the colour ranges you use in each program match up accurately. *ColorDrive* also creates palettes set for each printer you use, so you can get a match between how your design looks on screen and how it comes out on paper.

A forthcoming version will include support for Apple's ColorSync 2.0 system, used on Apple's own printers. For more details contact Pantone on 01303 259 959.

SoftWindows 2

The Mac is still the best personal computer around, but in certain situations it has become helpful to be able to use software written for the MS-DOS and Windows operating systems used by many computers as well. *SoftWindows 2.0* is the updated version of a Mac program that enables you to do exactly that.

With *SoftWindows*, you can run programs like *CorelDRAW!* that aren't yet available for the Mac, which may come in handy if your Mac shares office space with PCs, for example. This is despite the fact that Windows programs aren't written in language your Mac can understand. *SoftWindows* sidesteps this problem by using Mac code to imitate a Windows PC in a process called emulation.

Now you can run MS-DOS and Windows programs on your Mac as well – with no extra hardware – using *SoftWindows 2.0*.

Makers Insignia Solutions claim a PowerMac running *SoftWindows 2.0* can be as fast as a 486SX PC with a 25MHz chip, so it should be perfectly capable of running today's demanding applications. And it can also take advantage of Mac abilities like scripting, where you can set your Mac automatic tasks like running a program and printing a document at the click of a button. With *SoftWindows* you can easily write scripts on your Mac for PC programs to carry out.

The price of version 2.0 has not been decided yet, but isn't expected to be more than £360.

- **Price: TBA. Out: this month.**
- **Requires: any PowerMac with System 7, 16Mb of RAM**
- **For more details contact Insignia Solutions on 0800 667706.**

Trackball Pro and Jetstick

Two new devices from CH Products join the range of alternatives to the traditional mouse and keyboard.

You can use Trackball Pro instead of your mouse – some people prefer the control that practice with a ball control device can give. It's set up so the cursor will move across the screen more quickly than it would with your old mouse, and there are extra buttons you can use for any of several predefined functions – like dragging an icon from one place to another.

Jetstick, meanwhile, is strictly for game-players. It's designed with flight simulations – one of the most popular game genres on the Mac – in mind, but would also come in handy for racing games. You can use the supplied program to make individual settings for each game you use Jetstick with, and switch to them whenever you play that game.

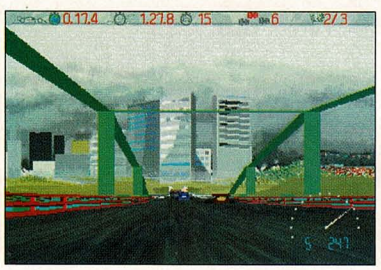
- **Prices: Trackball Pro, £89.95; Jetstick, £49.95.**
- **Out: now.**
- **Requires: Mac SE or better. Jetstick software requires System 6.0.8 or later.**
- **For more details contact ISM on 0121 327 4499.**

Al Unser Jr's Arcade Racer

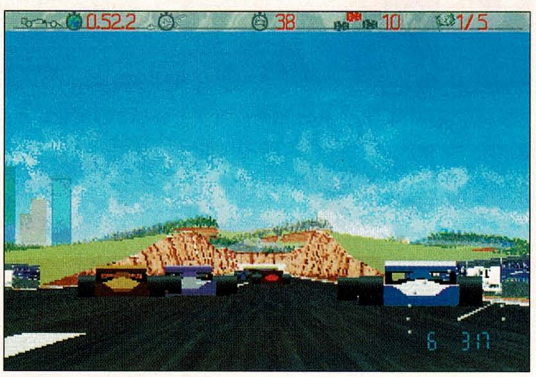
Few Mac games say it all in their title as much as *Al Unser Jr's Arcade Racer*, due out later this month.

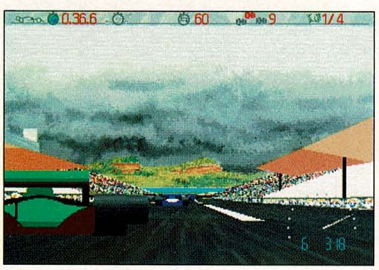
It's a *racer!* 15 circuits test your driving skills as you compete to win the Indy Car championship, with detailed tracks and landscapes zipping past.

It's *arcade!* The accent is firmly on gameplay, with simple options that let you get into the game quickly. You can race friends by connecting up to eight Macs together at one time.



It's got *Al Unser!* No, we haven't heard of him either – but we've been assured he's a top driver in the Indy series in the States, and Nigel Mansell inhaled his exhaust fumes when the two raced each other.





Al Unser Jr owes some obvious debts to arcade smash hit *Ridge Racer*, but even that can't match *Al's* 15 circuits.

We've played an early version of *Al Unser Jr* on our PowerMac in the office and it storms along. Look out for a full MACFORMAT review soon.

- **Price: £29.99**
- **Out: this month.**
- **Requires: LCII or better with System 7, 4Mb of RAM (8Mb for PowerMacs) and a 13-inch screen.**
- **For more details contact Mindscape on 0144 246333.**

Foul Play

The quiet halls of Awkward Manor have been disturbed by a murder. Sir John has been killed in cold blood, and one of his guests is the killer. And now it's up to you to find out whodunnit...

One of this innocent-looking bunch is guilty of Sir John's murder – but who? In *Foul Play*, the killer's identity changes each time.

In *Foul Play*, due out later this month, up to five friends and you can each play the role of one of the guests. By searching the house, you can find clues and question the others until you piece together the time, place, method and perpetrator of the dirty deed. Makers the Armchair Travel Company say there are thousands of different permutations, so no two games should be the same.

If all this sounds a little like a certain board game... well, now's your chance to play it on your Mac. It's designed to be played by groups, especially families – one of a small but growing number of titles looking to this area.

- **Price: £39.99.**
- **Out: this month.**
- **Requires: LCIII or better with System 7.1, 8Mb of RAM, a 13-inch 256-colour screen and a CD-ROM drive (double-speed recommended).**
- **For more information contact the Armchair Travel Company on 0171 386 5454.**

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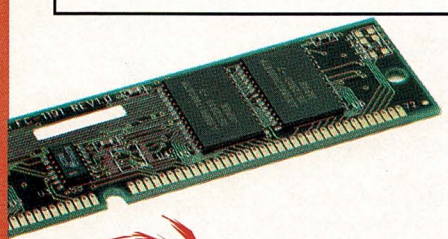
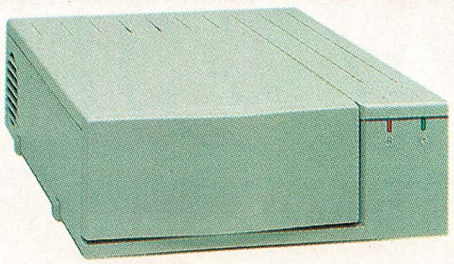


Hard Drives



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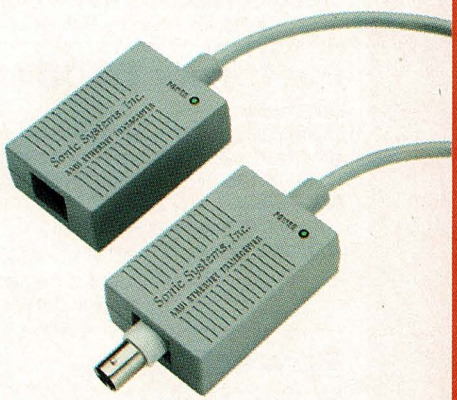

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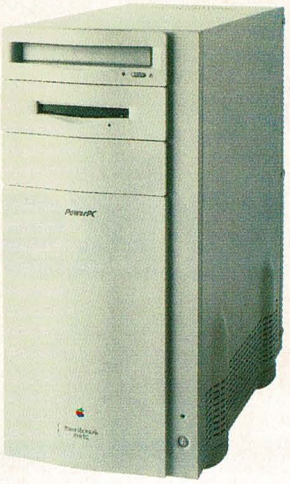

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MACROSCOPE

Taking a wider view of the Macintosh world, MacroScope looks at a Europe-wide communication project led by Apple. Plus: the latest on the Pippin super-console? Richard Hill reports.

This is Radio Apple

Could science fiction be about to turn into a feature of everyday life? Radio networks could transform the way we use computers. We look at Apple's new venture.

Many Macs are now linked together or with other types of computer for all sorts of reasons – your Mac could be part of a network in a sophisticated office set-up or linked to a friend's for a game of one-on-one *Marathon*. And the size of the Internet, the biggest network of all, is exploding. Using your Mac for communicating is becoming a crucial part of everyday computing.

It's against this backdrop that Apple are spearheading another bold move into personal communication, with the help of a medium that's regarded almost as quaint against brash newcomers like television and CD-ROM. Radio could hold the key to a series of developments that might change the way we use computers – and even fundamentally affect the design of computers themselves.

Networks are limited at the moment because even if you have a portable computer, you still have to find somewhere to plug it in before you can join a private network or get onto the Net. But imagine using a computer anywhere.

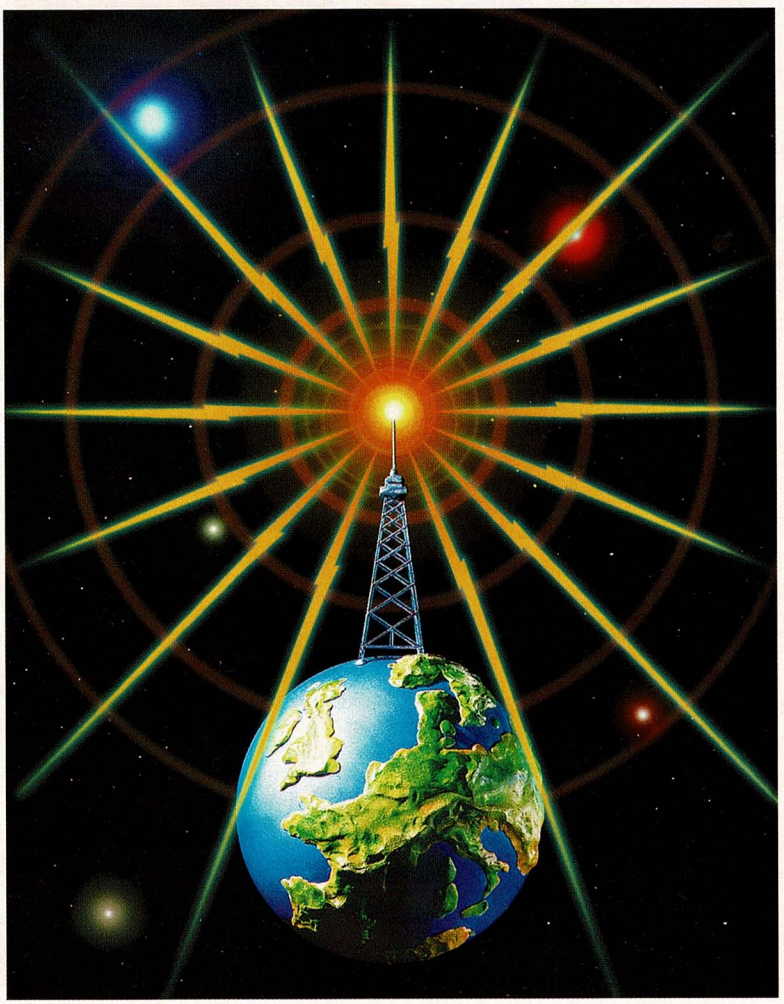
Radio could hold the key to changing the way we use computers.

You could carry around a personal digital assistant, like an Apple MessagePad, hooking up with a central computer or network – wherever you are in the building, and for whatever information you need. Out on the street, you could exchange complex information with anyone you meet who has the same device – for example, go into a shop and have a bang-up-to-date catalogue loaded onto your machine for viewing later.

And radio networks would be faster and cheaper to set up than ones where you have to install physical wires.

This science fiction situation can become real with radio networks – and here's how it works. Each radio station you listen to (BBC 1FM or Classic FM, for example) has a radio frequency allocated to it. It's allowed to broadcast on its frequency over an agreed range. Radio Four can transmit over the entire country, while stations like Birmingham's BRMB are restricted to a local area. And organisations like the police also have channels set aside for them.

In Europe, a system called Hiperlan is being developed by Apple and their partners GEC Plessey and Advanced RISC Machines. With Hiperlan, a range of frequencies (between 5150-



PORTABLE MACS

For a comprehensive round-up of your choice of portable Macs and digital assistants, see last issue's cover story.

INFO HIGHWAY

While Europe is making progress towards getting cables for networks installed, it's the United States that are setting the pace. You can read about their Information Superhighway project (the NII) on the World Wide Web. Point your browser at http://sunsite.unc.edu/nii/toc.html

Once virtually ignored by the computing community, the Newton is coming into its own as new technology means portables are in demand.

Pippin talk

An innovative Apple console is under development in Japan. Now the silence on the progress of this ambitious project is broken as Apple's partners speak.

Pippin is the name of an intriguing design from Apple. Based on the PowerMac, it bears more resemblance to games consoles like the Sega MegaDrive (see MACFORMAT 25 for a first look).

5300 MHz, fact fans) is given over for computer communication. The range remains limited to 50 metres for the moment, but an established standard to build on will exist.

The United States is thinking even bigger. The National Information Infrastructure (NII) is the official name of the much-touted Information Superhighway – an America-wide network. Again, Apple are involved in the setting-up of the wireless part of the NII, which will enable community networks to emerge. For example, all the schools in a town could share computer information across the airwaves. Or everyone in the town could get access to data stored at the local library.

And yes, one of the ideas Apple are proposing is that the American system should use at least the same frequencies as Hiperlan, so the computers of the future could work across both continents. The idea is to make the new frequencies open to all.

But Apple aren't getting so involved in all of this for nothing. A widepsread radio networking would add another string to Newton's bow. Newton is the the design that Apple's MessagePads and a few other devices like Motorola's Marco are based on. The design is by far the most-used in the PDA market – Apple have a 60% share.

All the schools in a town could share computer information across the airwaves.

Up until now, Newton has suffered perhaps from being an idea ahead of its time. Not only were there teething problems with technologies like Newton's handwriting recognition, but Apple found it difficult to get across why you might need a PDA.

But developments like this may mean a corner has been turned. Designs like Newton – where the baggage of desktop computing is stripped away until you have a simple, useful tool – promise to become more relevant as we move into the next century. **MF**

When Pippin was first announced, Apple were intending everything to be ready to buy at the end of the year – Bandai, a large toy firm, are set to release the first machine to be based on the Pippin design under the name of the Power Player. It's intended to be out in Japan before Christmas, with American and European releases to follow in 1996.

But things have been remarkably quiet since the initial fanfare – especially when you consider the hoopla surrounding other new console projects like Sega's Saturn and the Sony PlayStation. It's because of names like these and the silence from Apple and Bandai that the purpose of Pippin has become unclear. Is it just for playing games – or something more ambitious?

Shin Unozawa: 'The Pippin could be considered a "Personal Communicator".'

Bandai's Shin Unozawa is in charge of Pippin development in Taito-ku, near the Japanese city of Akihabara: 'We are still developing it, but we do know that the Pippin is not a games machine like a Saturn or a PlayStation. We want to make a new kind of machine using the Apple operating system. The Pippin is not even a computer – we want to create a new category. The Pippin will use a TV-set, a CD-ROM and a networking device – these three components will make it a new type of hardware.'

Unozawa believes you'll be able to use Pippin for a wide range of tasks. 'Naturally, you'll be able to play Apple games and it's also possible to use simple word-processors and some art packages.

'There are 300 Japanese developers participating in the Pippin project and there will be about 130 titles available at launch. Of these, around 60 titles will be education software, 40 entertainment software (including games), with seven office titles, ten communication titles and ten reference titles. Bandai are going to release Pippin versions of games like *Gundam*, *Sailor Moon* and *Dragon Ball* [Apple versions of popular Japanese games].'

There are plans to take Pippin into new realms, says Unozawa. 'We also want to make the Pippin a communication machine.'

GeoPort is a device from Apple that acts like a built-in modem, so you can connect to on-line services like the Internet. And there's one built into Pippin. Unozawa says, 'We've had a lot of advice from Japanese and foreign software developers who gave us their ideas about what could be done with the comms capability of the Pippin. Some of them are thinking about education – students will only have to connect their Pippin to the TV and they will be in contact with a teacher. In Japan, this system is already emerging on personal computers, but with the Pippin it'll be cheaper. Overall, the Pippin could be considered a "Personal Communicator".'

Unozawa is confident of healthy sales for the new device: 'There are between 500,000 and 600,000 Macs in Japan and we hope to sell the same number of Pippins in the first year.'

And he has no fear of possible competition should another firm – or maybe even Apple themselves – begin to sell consoles based on Pippin as well. 'Even if they release an integrated TV and Pippin that's no problem for us.' **MF**

■ *Shin Unozawa was talking to Nicolas di Costanzo.*

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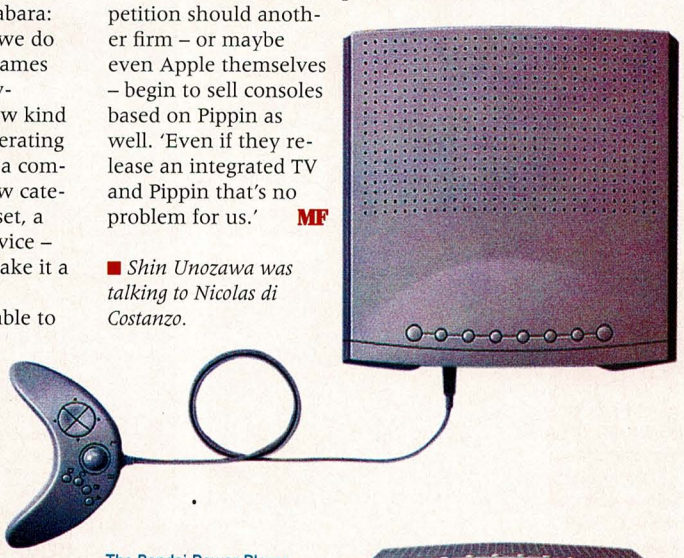

The Bandai Power Player includes a controller with both games-console-style buttons and a trackball for moving your screen cursor. There's even an optional floppy disk drive (bottom right).

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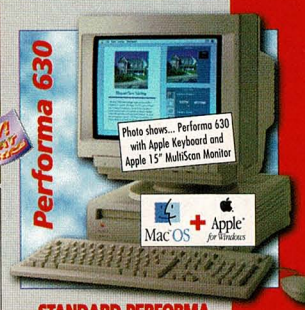

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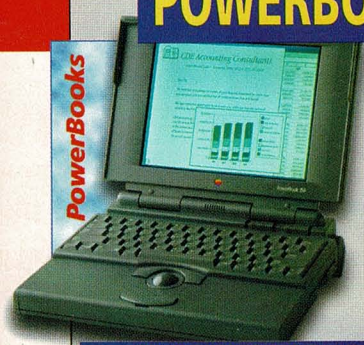

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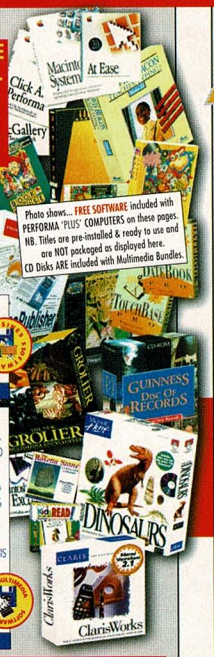
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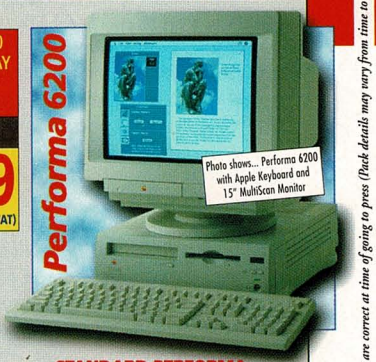

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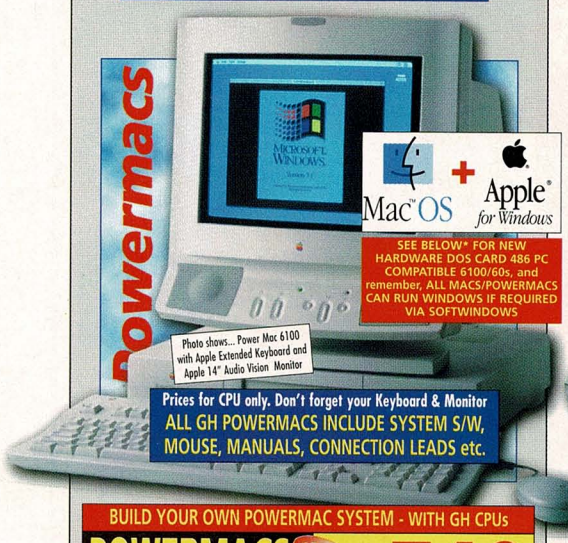
**DEFERRED PAYMENT PLAN FOR PERSONAL INDIVIDUALS* VISITING OUR SHOWROOM FOR A LIMITED PERIOD AVAILABLE ON PURCHASES OVER £500- PAY A MINIMUM OF 10% DEPOSIT NOW, THEN NOTHING MORE FOR 5 MONTHS! During that period you can settle IN FULL (without any finance charges) or continue your agreement with normal interest arrangements (ie. Direct Debit APR 27.8%/2.07% per Month - Payment Book 32.4%/2.37% per Month). And... for the first 5 months you'll also receive FREE AGREEMENT LIFE COVER. Written details/quotations available on request. *Subject to status. Please contact us prior to your visit for details of easy application requirements.*

GH... Leading the way

NEW 9500s - THE FASTEST EVER...

POWERMACS



SEE BELOW* FOR NEW HARDWARE DOS CARD 486 PC COMPATIBLE 6100/60s, and remember, ALL MACS/POWERMACS CAN RUN WINDOWS IF REQUIRED VIA SOFTWINDOWS

Photo shows... Power Mac 6100 with Apple Extended Keyboard and Apple 14" Audio Vision Monitor

Prices for CPU only. Don't forget your Keyboard & Monitor

ALL GH POWERMACS INCLUDE SYSTEM S/W, MOUSE, MANUALS, CONNECTION LEADS etc.

BUILD YOUR OWN POWERMAC SYSTEM - WITH GH CPUs

POWERMACS FROM ONLY... £749 (£880.08 inc. VAT)

GREAT GH DEALS ON ENTRY LEVEL POWERMAC 6100s

	RAM	HD	Display	CD	Keyboard	Price
While Stocks Last 6100/60	8Mb	250Mb	✗	✗	✗	£749 (£880)
6100/66	8Mb	500Mb	✗	✗	✗	£1129 (£1327)
6100/66 CD	8Mb	500Mb	✗	✓	✗	£1329 (£1562)
6100/66 + PC*	8Mb*	500Mb	✗	✗	✗	£1529 (£1797)
6100/66 CD + PC*	8Mb*	500Mb	✗	✓	✗	£1629 (£1914)

* 6100/66 PC Systems inc. 486 DX2 66MHz card & MS DOS 6.2 (Windows may be purchased separately)
* REMEMBER YOU ALSO GET AN EXTRA 8Mb RAM ON THE DOS CARD TOO GIVING 16Mb IN TOTAL!

GH BONANZA ON MID-RANGE POWERMAC 7100s

	RAM	HD	Display	CD	Keyboard	Price
7100/80	8Mb	350Mb	✗	✗	✗	£1695 (£1992)
7100/80 CD	8Mb	700Mb	✗	✓	✗	£1979 (£2325)
7100/80 CD-AV	8Mb	700Mb	✗	✓	✗	£1979 (£2325)

GH HIGH SPECIFICATION POWERMAC 8100 BARGAINS

	RAM	HD	Display	CD	Keyboard	Price
8100/100	8Mb	700Mb	✗	✗	✗	£2499 (£2936)
8100/100 CD	16Mb	700Mb	✗	✓	✗	£2879 (£3383)
8100/100 CD-AV	16Mb	1Gb.	✗	✓	✗	£3149 (£3700)
8100/110 CD	16Mb	2Gb.	✗	✓	✗	£3499 (£4111)

NEW POWERMAC 9500/120 CD 16/1000, Quad CD, and Accelerated Graphics Card

POWERMAC 9500 FROM JUST... £3799 (£4463.83 inc. VAT)

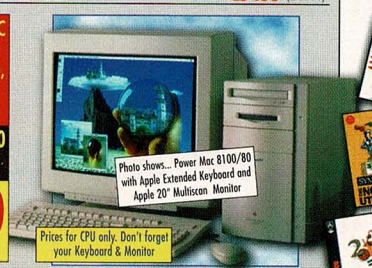


Photo shows... Power Mac 8100/80 with Apple Extended Keyboard and Apple 20" Multiscan Monitor
Prices for CPU only. Don't forget your Keyboard & Monitor

NEW GH 9500s - THE FASTEST MACS EVER!

The all new Apple Powermac 9500 Range sets new standards for speed, performance, expandability and processor upgradability. If you are a designer, engineer, multimedia expert or anyone with a need for POWER, these are the Macs to buy! Each model incorporates 6 Industry Standard PCI expansion slots for low cost plug in card possibilities. The 9500/120 CDGR & the 9500/132 CDGR come with an Accelerated 24-Bit PCI Graphics Card already fitted, whilst the 9500/132 CD is supplied without this card - allowing you to add a Graphics/Other Cards of YOUR choice.

	RAM	HD	Display	Apple Graphics Card*	CD	K/B	Price
9500/120 CDGR	16Mb	1Gb.	✗	✓	✓	✗	£3799 (£4464)
9500/132 CD	16Mb	2Gb.	✗	✗	✓	✗	£4399 (£5169)
9500/132 CDGR	16Mb	2Gb.	✗	✓	✓	✗	£4599 (£5404)

* 2Mb VRAM Included - Further 2Mb VRAM for extra performance also available - Please ask us!

"Confirm you're getting the BEST DEAL - call those friendly people at the UK's FAVOURITE RESELLER!"

"Got a technical problem?" "Need an Upgrade?" "Want a new peripheral fitting?" LOOK NO FURTHER... Our Apple Approved Engineers will do the job.

GH MONITOR MADNESS

Monitor Model		Price
Apple 14" Performa Plus (.28)		£209 (£246)
Apple 14" Trinitron (.26)	LOWER PRICE	£239 (£281)
Apple 14" AudioVision (.26)		£345 (£406)
Apple 15" MultiScan (.28)		£299 (£352)
Apple 17" Trinitron MultiScan (.25)		£659 (£775)
Apple 20" Trinitron Multiscan (.26)		£1399 (£1644)
Sony 15" SFI Trinitron MultiScan (.26)		£345 (£406)
Sony 17" Trinitron MultiScan (.26)		£659 (£775)
Raster Ops 20" Trinitron Tube		£1199 (£1409)
Raster Ops 21" Hitachi Tube		£895 (£1052)

NB. Shown below are the sizes of monitors individual Macs can run (some require more Video RAM (VRAM) for this and/or in order to increase the Maximum number of colours that can be displayed). New 9500 Models may require extra VRAM and/or a Video Card. Please ask us for advice on what you will need for your ideal system.

LC III/Performa 450-460-630/Quadra 630/Powermac 6100-5200-6200 Max 17" Performa 475/Powermac 7100-8100-9500 Max20"

MACINTOSH KEYBOARDS

Apple Design Keyboard	£79 (£93)
Apple Extended Keyboard	£139 (£164)
Apple Adjustable Keyboard	£165 (£194)

TV, VIDEO & GRAPHICS UPGRADES

630/5200/6200 Video-In Card	£90 (£106
630/5200/6200 Video-In and TV Tuner Card	£210 (£247)
630/5200/6200 Video-Out Card	£210 (£247)
630/5200/6200 MPEG FMV Video CD Playback Card	£199 (£234)
Raster Ops Paintboard Prism 24-Bit Accel. Nubus Graphics Card	£539 (£634)
5200 External Monitor Connection Port Kit	£29 (£34)

MACINTOSH CHIP UPGRADES

RAM - 4Mb SIMMS	£115 (£136)
RAM - 8Mb SIMMS	£219 (£258)
RAM -16Mb SIMMS	£359 (£422)
Powermac 256K Cache	£159 (£187)
Powermac 512K Cache	£251 (£295)
630 - FULL 68040 with FPU Chip Upgrade	£309 (£363)

MACINTOSH EXPANSIONS

Macintosh 630/5200/6200... Comms Card	£199 (£234)
Macintosh 475 and 630... Upgrade to full Apple Powermac - Cards	£429 (£505)
Powermac 6100... PC 486 DX2 66MHz Microsoft DOS Card	£399 (£469)
Collect, fit and redelivery for upgrades please add...	£30 (£36)

BUY FROM GH WITH ABSOLUTE CONFIDENCE!

"As a family business established in 1955, we've supplied computers for the past 12 years. With over £32 million worth of units sold, and more than 215,000 happy customers, our trading record is second to none! Why don't you try us for your next Apple and find out why we are the UK's Favourite Apple Reseller?"

Giles Harwood - Managing Director

HARWOODS GOLD SERVICE - PEACE OF MIND

FAX FOR A... QUICKQUOTE 01-773 831040

ORDER HOTLINE... 01-773-836781

MACINTOSH SOFTWARE

GRAPHICS	Quark Xpress 3.3 - Native PowerMac	£649 (£763)
	- 68030/40 (Non P/Mac)	£587 (£690)
	Adobe Illustrator 5.5	£289 (£340)
	Adobe Photoshop 3.0	£400 (£470)
	Adobe Collection	£499 (£586)
	KAI's Power Tools	£99 (£116)
	NEW KPT Vector Effects	£99 (£116)
	NEW KPT Power Photos	£99 (£116)
	KPT Convolver	£99 (£116)
	KPT Bryce	£99 (£116)
	Aldus Freehand	£320 (£376)
BUSINESS	Claris Works 3.0	£98 (£115)
	Claris Filemaker Pro	£98 (£115)
	Microsoft Office	£362 (£425)
	Microsoft Word	£255 (£300)
	Microsoft Excel	£259 (£304)
	WriteNow	£30 (£35)
	M.Y.O.B (accounts)	£150 (£176)
	SignPost	£79 (£93)
UTILITY	SAM	£55 (£65)
	SAM 4.0 (Inc. 1Yrs Updates)	£109 (£128)
	RAM Doubler	£60 (£70)
	Speed Doubler	£60 (£70)
	Norton Utilities	£81 (£95)
	Suitcase	£59 (£69)
	After Dark 3.5	£30 (£35)
EDUCATIONAL	Encarta '95	£64 (£75)
	Cinemania '95	£42 (£49)
	Kid Pix 2	£30 (£35)
	Living Books - Tortoise & the Hare	£30 (£35)
	DK - The Way Things Work	£41 (£48)
	DK - Incredible Dictionary	£34 (£40)
	DK - Encyclopaedia Science	£64 (£75)
	DK - Ultimate Human Body	£51 (£60)
GAMES	MYST CD	£34 (£40)
	Marathon	£39 (£46)
	SIM City 2000	£30 (£35)
	Dark Forces	£34 (£40)
	A-10 Attack	£39 (£46)

MACALLY GAMES CONTROLLERS
Joystick £43 (£50)
GamePad £34 (£40)

"...at GH, we'll look after you..."

SERVICE, SUPPORT and WARRANTIES: GH is one of Apple UK's selected Authorised Service Providers (not all Resellers have this accreditation). Our standard One Year GH Gold Warranty gives you a comprehensive backup. GH also offer a range of options for business and professional users which may be essential for systems in high dependency/constant use

BY PHONE: We'll help with any queries and when you're ready to order we accept Visa, Mastercard, Access, Switch, Connect, Delta and Lombard Creditcharge (most 'store cards' are Lombard Creditcharge and we happily accept them).

BY POST or FAX: When ordering include your name, address and preferably a contact phone number with your order requirements. If charging a credit/debit card include its number and expiry date (and issue number with Switch cards). Make Cheques (please allow 7 days clearance prior to despatch), Bankers/Building Society Drafts or Postal Orders payable to Gordon Harwood Computers

PRICES: Please remember to confirm prices in case you are looking at an 'old' magazine. Prices can change (up or down) before the magazine's cover month has passed. Please confirm before sending orders by post.
For the convenience of personal and business customers, we list prices both with and without VAT (to the nearest full £ - shown in brackets)

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DELIVERY: We ship promptly & offer delivery of all orders throughout Mainland UK & most products overseas. If your order is urgent we have priority despatch options with express delivery available.

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for value and service!

Apple Authorised Reseller & Service Provider

RED HOT SIZZLING SUMMER SAVINGS... FROM SUPER GH!

UMAX PRICE CRASH

Model	Resolution (dpi) Optical	Max	Transp. Adaptor	Photoshop	Price
VISTA T630	600x300	4800	✗	LE	£399 (£469)
VISTA T630	600x300	4800	✓	FULL	£849 (£998)
VISTA S8	800x400	6400	✗	LE	£549 (£645)
VISTA S8	800x400	6400	✗	FULL	£669 (£786)
VISTA S8	800x400	6400	✓	FULL	£999 (£1174)
UC 1260	1200x600	9600*	✗	LE	£669 (£786)
UC 1260	1200x600	9600*	✗	FULL	£825 (£969)
UC 1260	1200x600	9600*	✓	FULL	£1149 (£1350)
POWERLOOK	1200x600	9600*	✗	FULL	£1699 (£1996)
POWERLOOK	1200x600	9600*	✓	FULL	£1999 (£2349)

*Available soon with new interpolation software

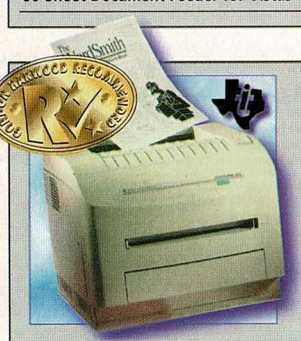
VISTA S8
GH SCOOP PRICE
SCANNER BARGAIN...
£575
(£675.63 inc. VAT)

GENUINE UK UNITS...
ALL GH UMAX PRODUCTS COME WITH 1 YEAR ON-SITE WARRANTY IF SOURCED IN THE UK. GREY IMPORTS DO NOT CARRY THIS OFFICIAL WARRANTY.

GH OMNIPAGE SOFTWARE OPTION...
Buy Omnipage with ANY Umax Scanner from GH and pay
JUST... £45 (£53)

Transparency Adaptors £422 (£499)
(please quote Umax scanner model when ordering)

50 Sheet Document Feeder for Vistas £379 (£445)



TEXAS INSTRUMENTS 600dpi LASER BARGAIN!
600dpi LASER PRINT FROM...
£599
(£703.83 inc. VAT)
TI LASER TONERS AVAILABLE NOW!

If you've been waiting for the expense of 600dpi Laser Printing to **COME DOWN**, but not at the cost of quality - your wait is over! The new TEXAS INSTRUMENTS MICROLASER 600 & PRO 600 could be the answer to your dreams with their feature packed specifications...

- A4 Paper Size • 250 Sheet Paper Tray • Fast 5ppm (600)/8ppm (600 Pro)
- PCL 5 Emulation • RISC Processor • Autosensing Connections for MAC or IBM Compatibles • True 600 x 600 dpi Resolution • Adobe Postscript Level 2
- Options to add a Universal Sheet Feeder for a variety of paper sizes (eg. Laser Labels, Laser Envelopes, Transparencies etc.)
- 2 or 4Mb RAM (max 10Mb) - 600 • 3Mb RAM (max 22Mb) - 600 Pro

Both the 600 (2Mb) & 600 Pro incorporate a RAM BOOSTER allowing many 4Mb files to be output even with 2Mb RAM. Please note that 600dpi print files are **FOUR TIMES** the size of equivalent 300dpi print files FOR ALL PRINTERS - GH therefore still recommend that whilst 2Mb is adequate for WP etc., 4Mb or more will extend the capabilities for large graphic output files etc. at 600dpi.

TI Microlaser 600 Model...	Price
Microlaser 600 with 2Mb RAM + RAM BOOSTER*	£599 (£704)
Microlaser 600 with 4Mb RAM	£725 (£852)
2Mb RAM Upgrade	£145 (£171)
MICROLASER 600 PRO Including 3Mb RAM + RAM BOOSTER*	£850 (£999)

GREAT QUALITY INKJET PRINTING ON A3 PAPER
EPSON 720dpi STYLUS PRO XL £1445 (£1697.88 inc. VAT)

GH have secured stocks of the exciting NEW EPSON STYLUS PRO XL inkjet printer which boasts an incredible 720 x 720dpi maximum resolution. Not only that, but output can be A3 PLUS BLEED! This is the ultimate inkjet Proofing Device - Ask GH for more details.

•A3 PLUS BLEED •720 X 720dpi QUALITY HIGH RESOLUTION •EASYCHANGE TRICOLOUR/BLACK CARTRIDGES •BUILT IN SHEET FEEDER •INCLUDES SERIAL CABLE TO YOUR MAC - FREE •ETHERNET AVAILABLE

NEW EPSON STYLUS PRO A4 COLOUR INKJET PRINTER
A4 version of the above with a similar specification...
•EASYCHANGE TRICOLOUR/BLACK CARTRIDGES •BUILT IN SHEET FEEDER •A4 PAPER SIZE •720 X 720dpi QUALITY HIGH RESOLUTION •INCLUDES SERIAL CABLE - FREE •PIEZO FINE DOT •EPSON MICROWEAVE TECHNOLOGY •ETHERNET AVAILABLE
£679 (£798)

EPSON STYLUS A4 COLOUR INKJET PRINTER
GH can also offer you quality inkjet printing at 720dpi with the EPSON STYLUS working with A4 sizes. Inc. FREE cable £375 (£440)

THE IDEAL COMPANION IF YOU'RE ON THE MOVE
GH HAND HELDS NEWTON HAND HELDS FROM... £199 (£233.83 inc. VAT)

NEWTON 110 -1Mb	£199 (£234)
NEWTON 120 - 2Mb	£399 (£469)
1Mb Storage Card	£60 (£70)
2Mb Storage Card	£111 (£130)
4Mb Storage Card	£199 (£234)
Connection Kit - Mac	£51 (£60)
Connection Kit - Windows	£51 (£60)
Leather Carrycase - 100/Original Message Pad	£34 (£40)
Leather Carrycase - 110/120	£42 (£50)
Battery Pack Wall Recharger including Battery - 100	£34 (£40)
Mains Charge Station inc. Batt. -110/120	£47 (£56)
Nicad Battery - For Newton 110	£14 (£17)
Nicad Battery - For Newton 100/Original Message Pad	£13 (£16)
Tapworks	£51 (£60)
Graffiti	£39 (£46)

LOTS MORE NEWTON SOFTWARE AVAILABLE - PHONE GH!

IF YOU TRAVEL AND WANT TO STAY IN TOUCH FROM YOUR CAR OR WHEREVER YOU CAN USE A MOBILE PHONE...

THEN APPLE HAVE THE ANSWER!

NEWTON120 - 2Mb with NOKIA 2110 Digital Mobile Phone, GSM Pack and DataCard £1244 (£1462)

GSM PACK - NOKIA 2110 Mobile Phone, GSM Pack and DataCard for use with Newtons £995 (£1169)

Leaf a scitex company scitex
New Product
Captures an image at 2700 x 3400 (26Mb) resolution in just 3 minutes (33MHz Quadra 950. Great quality output even at A4 size.
INCLUDES 35mm SLIDE ADAPTOR!

- Ideal for Graphic Artists, Designers, In-House publishers, Service Bureaux, Newspaper/Magazine art departments etc. that need to cut out the waiting time for their Photographic requirements... Now YOU control the imaging schedule - in a quick & easy way.
- Cut scan times. Get transparencies/photos directly into your Mac.

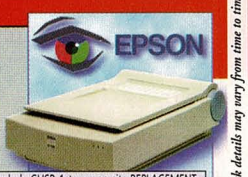
DIGITAL ELECTRONIC PHOTO SCANNER/CAMERA
SCITEX LEAF 2700 x 3400 LUMINA! £2999 (£3523.83 inc. VAT)

The NEW... LEAF LUMINA from SCITEX is a revolutionary 2700 X 3400 resolution full colour imaging product designed to bring production quality photographic images onto the desktop. You can use the Lumina with standard photographic accessories such as a tripod, copy stand, studio lights, lens filters/gels etc. to capture not just flat artwork, but also 3 DIMENSIONAL OBJECTS/SCENES too! Lumina is supplied with its own 50mm lens and also accepts 'off the shelf' standard Nikon fitting 35mm SLR Camera lenses for real versatility. Operation is really simple, Arrange your 'still life' items and light them etc. and Lumina will input via your Macs SCSI interface. The picture will preview/update on your Mac monitor as the image progresses! IT'S AS EASY AS THAT!

- Includes Lumina Software consisting of 2 Photoshop Plug-Ins
- Full focusing facilities for total creative control • Full MAC screen previews at 72dpi on a 19" monitor in around 20 secs.
- Use to Scan Artwork & Transparencies (35mm to 6 x 7cm) too.

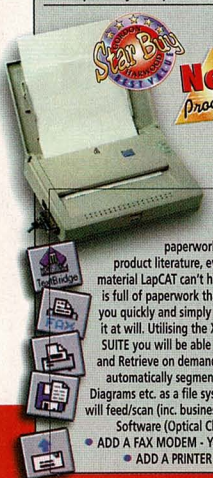
THE COST EFFECTIVE WAY TO GET QUALITY IMAGES INTO MACS!

SCANNER SAVERS
STARTING AT...
£449
(£527.58 inc. VAT)



EPSON WARRANTY: Epson Scanners include CUSP, 1st year on-site REPLACEMENT from distributor 'Customer Satisfaction Programme'

Model	Resolution (dpi) Optical	Max	Software	Price
GT 6500	300	1200	Photoshop LE & Omnipage Direct	£449 (£528)
GT 6500	300	1200	Full Photoshop	£629 (£739)
GT 8500	400	1600	Photoshop LE & Omnipage Direct	£569 (£669)
GT8500	400	1600	Full Photoshop	£779 (£915)
GT9000	600	2400	Photoshop LE & Omnipage Direct	£689 (£810)
GT9000	600	2400	Full Photoshop	£879 (£1033)
Transparency Adaptor for 6500/8000/9000				£418 (£491)



EPSON LAPCAT
DOCUMENT MANAGEMENT
GREAT GH VALUE... £339 (£398.33 inc. VAT)

The **NEW...** EPSON LAPCAT DOCUMENT MANAGEMENT SYSTEM at last provides a reliable way to manage YOUR paperwork - from business documents and reports, to product literature, even press clippings etc - there's virtually no material LapCAT can't handle. You know the feeling when your desk is full of paperwork that you just havn't had time to file - well, now you quickly and simply scan it all into the Epson LapCAT and retrieve it at will. Utilising the XEROX DESKTOP DOCUMENT MANAGEMENT SUITE you will be able to... • FILE ELECTRONICALLY - Scan, Store and Retrieve on demand • HANDLE TEXT/GRAPHICS - LapCAT will automatically segment material into Copy, Photographs, Business Diagrams etc. as a file system • AUTOFEED - 10 documents upto A4 will feed/scan (inc. business cards • UTILISE TEXTBRIDGE - Xerox OCR Software (Optical Character Recognition) and then if you...
• ADD A FAX MODEM - You have a Personal Fax and EMAIL Generator
• ADD A PRINTER - You have a Personal Desktop Copier

All listed prices are what YOU PAY, and there are NO HIDDEN EXTRAS. Prices are correct at time of going to press (back details may vary from time to time). Offers and Services are subject to availability and to being the latest advertised products, packs and prices. Please note goods are not supplied on a trial basis. E&OE.

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GH... Leading the way

Includes FREE LOCAL installation

APPLE 12/600PS COLOUR 600dpi LASER

£4999 (£5873.83 inc. VAT)

- A4 Paper Size • MONO or COLOUR output • True 600dpi Resolution
- Fast 12ppm Mono or 3ppm Colour • RISC Processor • ColorSync Ready
- Adobe Postscript Level 2 • 39 Postscript Fonts + Screen Fonts on printer
- 12Mb RAM (expandable to 40Mb) • LocalTalk, Ethernet & Parallel Ports
- SCSI Port (for External HD, font storage) • Optional Internal 240Mb HD

APPLE LASERWRITER PRINTERS...

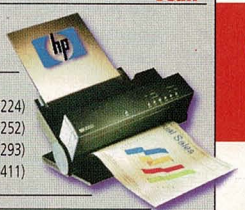
Personal LaserWriter 300 - 300dpi, 4ppm Mono	£429	(£505)
LaserWriter 320 - 300dpi, 5ppm Mono, P/Script Level 2	£649	(£763)
LaserWriter Select 360 - 600dpi, 10ppm Mono, P/S Level 2	£1049	(£1233)
LaserWriter 16/600 - 600dpi, 16ppm Mono, Postscript Level 2	£1599	(£1879)

APPLE StyleWriter 1200 Mono
360dpi x 720dpi Inkjet 3PPM Printer for budget laser-like quality output. Quickdraw GX compatible.
£199 (£234)

APPLE StyleWriter 2400B Colour
Excellent 360dpi colour output or 720 x 360 dpi mono. Ideal for proofs - the LATEST Colour S/Writer
£349 (£410)

APPLE StyleWriter 2200 Colour
Colour 360dpi or Mono 720 x 360 dpi. Compact and Portable - Ideal if you're on the move.
£289 (£340)

StyleWriter 2200 Rechargeable Battery
£Call



HP DESKWRITER Inkjet Printers...

HP320 - Mono 600 x 300dpi	£190	(£224)
HP320 - Inc. Sheet Feeder	£214	(£252)
HP540 - Mono 600 x 300dpi	£249	(£293)
HP660 - Colour 600 x 300dpi With Resolution Enhancement!	£349	(£411)

HP DESKWRITER 560 COLOUR Inkjet Printer
Colour - upto 600 x 300dpi £339 (£398)

PRINTER CONSUMABLES

StyleWriter...		
I/II/Portable - Black Cartridge	£16	(£19)
2400 - Black Cartridge	£22	(£26)
Colour Cartridge	£24	(£28)
Black Ink Tank	£6	(£7)
Colour StyleWriter Pro...		
Black Hi-Capacity Cart.	£8.50	(£10)
C, M, Y or K Cartridge	£7.50	(£9)
CMYK - 4 Colour Set Cart.	£30.50	(£36)
Epson Stylus...		
Black Cartridge	£17	(£20)
Colour Cartridge	£30	(£35)
360dpi Paper, 200 Sheet	£19	(£22)
720dpi Paper, 200 Sheet	£22	(£26)
All HP DeskWriters (except 660)...		
Black Double Cap. Cart.	£21	(£24)
Tri Colour Cartridge	£24	(£28)
HP 660 DeskWriters...		
Black Double Cap. Cart.	£24	(£28)
Tri Colour Cartridge	£25.50	(£30)
Toners...		
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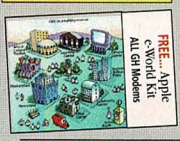

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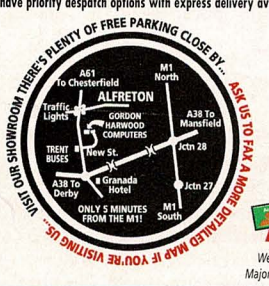

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IN A BIND?

Every letter and postcard published on these pages wins its sender an exclusive MACFORMAT binder, leaving just one question: should you wait on the off-chance that we'll print your letter, or should you turn to page 129 and order your own binder *now*? Decisions, decisions...

Opinions? Plenty of 'em this month, and I'll bet you've got some too. So share them with us, we'll print them here, and we'll send you a MACFORMAT binder to boot. What do you think of *that* then?

What to do with old software

I would like to see old programs like *QuarkXPress 2.12* or *3.0*, *Word 4.0*, *PageMaker 3.5*, *MacDraw Pro 1.0* etc released as shareware. God knows there are enough copies of these programs floating around the universities that I have attended. I believe that if these programs were available as shareware, then the companies in question might actually make some money from them. If you are impressed with a program you are more likely to stick with it and buy it when you are in a situation to do so. As a carrot, they could offer update facilities, like the cost of the most recent version less the shareware price that you paid, or free demo versions of the most recent product, or some documentation, etc.

Could you and would you provide some of these programs on your disks? I believe that there is a market for pure and simple programs (like *Word 4.0*, *SuperPaint 1.1MS*).

Sean Redmond
Ireland, via CIX

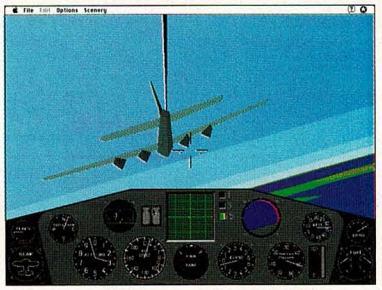
Oddly enough, most companies seem to feel that older versions of their software have simply ceased to exist. Maybe they believe nobody would be interested in anything less than the latest thing – but after all, people do buy older model cars, don't they? What do other readers think?

At least it got a mention

In MACFORMAT 26, the generally excellent Derek Smith 'binned' a doll-dressing shareware application on the grounds that it *might* be sexually suspect. The opponents of electronic freedom, on the Internet or not, would be pleased to see this example of (forgive me) ludicrous self-censorship – their campaign seems to be working.

Michael Dean
North Warnborough, Hants.

So should Derek have praised *it on the grounds that it looks like it's designed for child-abusers? All of us here are (strongly) in favour of freedom of speech, but the whole point of a review is to make a judgement, and we'd hardly be doing that if we* didn't *criticise any dodgy content. In any event, we did decide to include the program on that issue's CD-ROM, so you're free to try it and draw your own conclusions.*



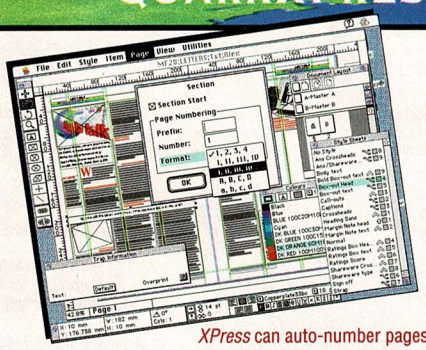
When does *Hellcats* become a flying nightmare? When you fly into a flight sim enthusiast's flak...

Flying into some flak

Ed Ricketts' review of *Hellcats Over the Pacific* (part of *MacBestsellers* bundle, MACFORMAT 24) *stank*. *Hellcats* is positively pedestrian? Nonsense! Take off in the carrier-carrier duel mission and you'll soon be dogfighting with your wingman against six Japanese fighters, then bombing their fleet, as flak and machinegun fire explode around you. Four years old it may be, but it still has the power to hold experienced flight-simmers in thrall while offering beginners simplicity and beautifully-smooth flight physics. Only *F/A-18 Hornet* and the demo of the new *A-10 Attack!* better *Hellcats*; the two Domark sims (*Flying Nightmares* and *Out of the Sun*) do nothing for me on my 68040 Quadra.

Why did Ed get it so wrong? One trained glance at the screenshots gives it away. One shows a Hellcat's instrument panel. He's taken up a full load of fuel! No wonder the plane is slug-

QUARKXPRESS: NOT ALL IT'S CRACKED UP TO BE?



XPress can auto-number pages, and do much more – but is it enough?

Further to your DTP feature in MACFORMAT 24: I'm a regular user of *QuarkXPress* and only by using it have I found faults, most of which surprised me considering its 'industry standard' status. What frustrates me most is the need to move multiple text/picture boxes out of the way to work on lower ones, ruining what might have been a complex layout.

Second is the auto page layout and pagination. My small mag has 48 A5 pages. I produce camera ready copy on my printer onto A4, which produces an A5 fold-over. When I have laid out the pages, I have to manually place them and number each page to make the pagination run correctly – page 1 has to remain blank, page 2 is my page 48, page 3 my page 1, etc. The salesman assured me it does it automatically. It doesn't!

Another annoying thing: if you make the mistake of typing in upper case for a while, then find you want lower, you have to type it all again. Why is there no upper/lower function? You can up lower but not lower upper!

I know there are XTensions to right these problems and a lot more, but you'd think Quark would incorporate these to save users (who pay a lot of damn good hard-earned cash) the expense and time of chasing up these add-ons and turn one of the best programs into *the* best. Perhaps they could also add a basic text manipulator such as *Type Twister*, to save a lot of time switching between programs as well as save cash.

Still, I will stick with Quark even though they're blunt, expensive and not bothered how they treat their customers, for I know a good product when I see one.

Lee S Foster
Nettlebed, Oxfordshire

In the past, Quark were notorious for their 'take the money and run' attitude to customer support. They claim to have reformed, but at the start of this year they introduced a hefty charge for after-sales support, on top of the already enormous cost of the program, with the explicit intention of discouraging people from bothering them – the answers to most of the queries they got, they said, are in the manual.

However, I would defend their decision not to incorporate all conceivable features into the program – just imagine how big and expensive it would be then! As our feature on 'plug-ins' last issue pointed out, the XTensions architecture makes it possible to add precisely the specialised functions you need, and we could argue for days about whether most *users need page-imposition. Our cover CD-ROM last month gave you the freeware* ChangeCase *XTension as well as demos of the leading page-imposition XTension* INposition *and its little sibling* INposition Lite. *(Admittedly the full products are rather pricey: the Lite version is around £250, and its big brother will set you back over £1,600! One for the pros all right.)*

As for having to ruin your complex layouts to work on 'hidden' text or picture boxes: hold down ***[command], [option]*** *and* ***[shift]*** *and click over the spot where the box should be. This selects successive layers in turn. When the hidden box's handles appear, showing it is selected, you can bring it to the front to work on it, then send it back again when you're finished, without having to move anything.*

gish! The poor geezer is forced into taking pot-shots at a friendly bomber, so inept is he at bagging enemy fighters. And the second picture shows a high-altitude toss-bombing of nothing in particular. Try sinking a Jap cruiser from wave-top height!

If you want flight sims reviewed properly, get someone who knows about them to do it. I'd hate to see the new, long awaited *F/A-18 Korean Conflict* or *A-10 Attack!* reviewed by someone better off left playing *Wolfenstein* or *Intergalactic Spaceship Blasters from the Planet Tharg.*

Mike Dembinski
Perivale, Middlesex via FutureNet

We showed Ed your letter, and he replied: 'Eat intergalactic blaster death, Thargian swine!' In response, we persuaded him of where he went wrong and sent him out with no fuel at all. Hope the review of A-10 Attack! *by a real flight sim fanatic this issue is more to your taste.*

Colourless character?

I don't think I can take more of this 'mono Mac abuse'. Maybe in the next edition of *Sim City* one of the scenarios could be: 'Your citizens have little money and own mono Macs. However, they keep being sent colour demos and can only find colour programs in the shops. You have two years to supply them with *good* mono Mac software before they lose their sanity.'

It is probably worth telling you that I know the owner of a Mac Plus who is a homicidal axe murderer without an axe, although I have heard that he is near to acquiring one!

John (close to insanity) Copland
Dalbeattie, Scotland

Copland? Any relation to the forthcoming update of the Mac Operating System, which won't be able to run on anything less than a PowerMac? Apart from the PowerBook 150, the last mono Mac was the Classic II, which was discontinued – when was it now? – about two years ago. We do try to include on our cover disks at least some software that will run in mono, but it is getting harder to find... and you say you want good *stuff as well?*

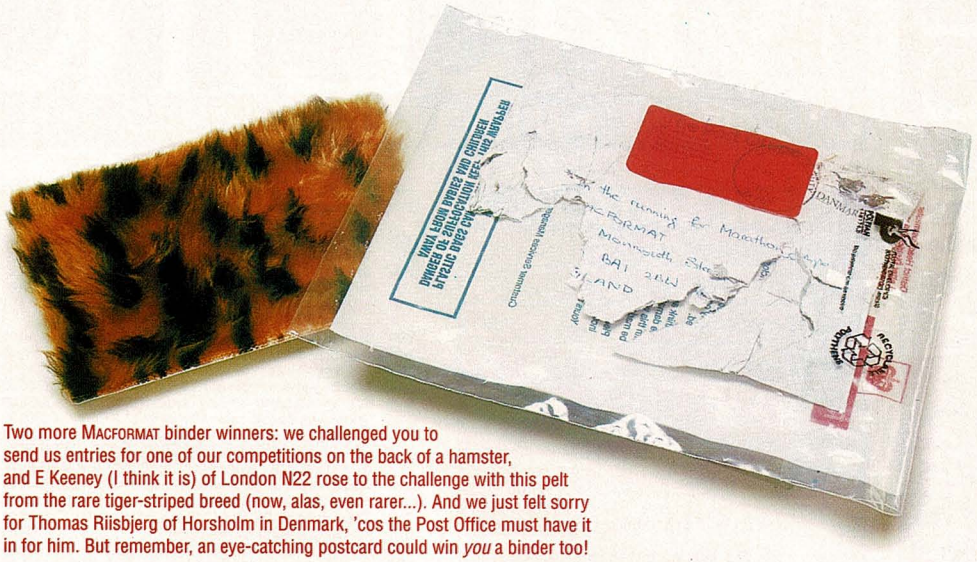
When is a demo a bad thing?

Being suitably impressed by the awesome demo of *Marathon* you had way back in Feb's issue (MACFORMAT 21) I saved up my cheap Aussie Dollars and purchased the CD version. When I installed it nothing happened. Well, the games started but there was no picture on the screen. Distraught, I tried again and again, but alas to no avail.

Then it struck me, the real game would create its own Preferences file, wouldn't it? And if there was a demo Prefs file then maybe there was a conflict. Sure enough, there it was... Once I'd deleted that, the real game worked perfectly!

I've torn myself away from it to suggest that you might like to remind readers to delete Preferences files from demos if they purchase the real game.

J Matthew Gardan
Sydney, Australia, via CIX



Two more MACFORMAT binder winners: we challenged you to send us entries for one of our competitions on the back of a hamster, and E Keeney (I think it is) of London N22 rose to the challenge with this pelt from the rare tiger-striped breed (now, alas, even rarer...). And we just felt sorry for Thomas Riisbjerg of Horsholm in Denmark, 'cos the Post Office must have it in for him. But remember, an eye-catching postcard could win *you* a binder too!

Why not pay for shareware?

Over the last few months I have written to a number of shareware authors to verify their snail mail address, with a view to sending payment. A few messages have been returned marked 'address not known'. In one instance I wrote offering payment where none was requested but the author replied simply asking for a postcard. This is on its way with a note of thanks. If people don't pay for shareware, the fault does not always lie with the end user.

Peter Grundy
Dalry, Ayrshire, via CIX

tArt eeL

Here are some Mac-related anagrams:
MACFORMAT: Craft ammo
MACFORMAT July: Mr Joyful at Mac; Major, my flu act
MACFORMAT August: Mac farts out a mug; gut us a MACFORMAT
MACFORMAT September: Top member after Macs
Michael Jackson: Hijacks lone Mac
PowerMacs: Space worm; worm's pace; we mop cars; a cow sperm
The Internet: I rent the Net.

Euan Grant Brodie
(trainee urban god)
Kinross, Tayside

Seeing that we gave you an anagram generator on the cover disk last month, this is now just too easy. (This letter was posted before that issue went on sale.) No more anagrams, please.

Collector's items

I have a few five-and-a-quarter-inch floppy disks made by Apple for the Mac. They are still in their box. Would they be worth anything?

Tim Dunton
via FutureNet

Depends. Is the box big enough to use as a doorstop? But far be it from me to scoff. There's an old free-market principle in collecting that an item is worth whatever someone is prepared to pay for it. So if anyone's interested, please let us know. **MF**

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ECSA **Epson Stylus 720** (brilliant quality colour inkjet) £379.00
ECSH **Epson Stylus A3** (A3 colour inkjet, non PostScript) £1575.00
BLPEA **GCC BLP Elite 600** (fast, PostScript, 4Mb, edge to edge) ..£1095.00
ELXA **GCC Elite XL608** (A3, 600dpi, edge to edge printing) £2145.00
S600 **GCC SelectPress** (A3 600dpi, edge to edge) £2995.00
HP3A **HP DeskWriter 320** (portable colour inkjet) £195.00
HP54 **HP DeskWriter 540** (superb new inkjet, Appletalk) £245.00
HP66 **HP DeskWriter 660C** (colour and mono in one) £345.00
LBWR **LabelWriter II** (mini thermal printer produces labels) £159.00
ML6A **Texas MicroLaser** (600dpi A4 PostScript 2Mb RAM) £615.00
MWR2 **Texas MicroWriter** (300dpi A4 PostScript laser) £490.00
PWPR **PowerPrint** (driver and cable for non-Apple printers) £125.00

MONITORS

FR17T **Formac 17" Trinitron Monitor** £545.00
FR20T **Formac 20" Trinitron Monitor** £1295.00
RDCM **Radius Colour Pivot** (unique tilt system) £695.00
RD2V **Radius IntelliColour 20" Monitor** £1399.00
SN15 **Sony 15" Trinitron Monitor CPD 15SF1** £359.00
SN17B **Sony 17" Trinitron Monitor CPD 17SF1** £675.00
THGx **Thunder IV Video Cards** .....from £1875.00

SCANNING

AFSA **Agfa StudioScan IIsi** (2400dpi, fast, the best) £635.00
EPSB **Epson GTX6500** (1200 dpi colour inc P'Shop & O'Page) ...£465.00
SMII **Microtek ScanMaker II** (great quality 600dpi) £345.00
COOL **Nikon CoolScan** (35mm slide scanner) £1125.00
STAX **Nikon AX1200** (fast, 1200dpi res A4 desktop scanner) ...£1095.00
OMPG **OmniPage 5.0** (OCR directly into applications) £245.00
SP35 **Polaroid SprintScan** (fast 35mm slide scanner) £1995.00
PPRT **PaperPort** (mono desktop OCR and scanning) £315.00

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ELAS **Elastic Reality** (seriously professional morphing) £195.00
MRP2 **Morph 2.5** (morph from one QuickTime movie to another) £79.00
MDRT **MacroMind Director 4.0** (key multimedia tool) £795.00
PRMR **Premiere 4.0** (Adobe's brilliant QuickTime editor) £399.00
TRNJ **Transjammer** (100s of transitional effects for Premiere) ...£89.00
VIDD **Video Director** (edit your home videotapes) £85.00
VDVx **VideoVision** (Radius' superb video digitiser) £1895.00

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ACPC **Access PC 3.0** (read/write PC floppys from your Mac) £65.00

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SPRC **Supra FaxModem** (top quality, lowest priced 14.4 baud) ..£95.00
SPRA **Supra FaxModem** (top quality, lowest priced 28.8 baud) .£215.00
MICL **Personal Microphone** (low cost but powerful comms) £39.00
STCH **Snatcher** (easy to use Internet file transfer software) £35.00
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TLPT **TelePort Platinum** (28.8 modem from Global Village) £240.00

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CPU **CPU** (excellent collection of PowerBook utilities) £49.00
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CCPx **PowerBook Carry Case** (Apple or third party) .....from £19.00
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RWY5 **RunShare** (up to 5 times quicker file transfer) ...five user £499.00
ANET **Anet** (LocalTalk (AppleTalk) connector boxes) £14.00
FLTK **MNet** (PhoneNet connector boxes) £12.00
QKML **QuickMail 3.0 10 User** (powerful flexible E-Mail) £369.00
TMBK **Timbuktu Pro** (control Mac/PC screens over network) £110.00
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ETWx **EtherWave** (daisychain Ethernet from Farallon) £165.00
Ethernet Cards (Asante, Shiva, Focus) .....from £69.00
Ethernet Tranceivers (Asante, Shiva, Focus) .....from £36.00

HARDWARE

INPUT DEVICES

KBCE **Extended Keyboard** (15 function keys, numeric pad) £49.00
MHWR **MacHandwriter** (character recognition A4 tablet) ..from £265.00
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AGMP **QuePad** (perfect for most arcade type games) £39.00
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TMADD **Thinking Mouse** (4 button with software) £65.00
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WCART **Wacom ArtPad** (handy stylus and tablet) £135.00
WCA4 **Wacom A4 UD1212** (professional, pressure sensitive) £389.00

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PP66 **Daystar Power Pro** (PowerPC accelerators) .....from £1295.00
CPLx **Math Co-Processor** (speed up your Classic II or LC) £35.00
VR256 **256K VRAM Chips** (adds more colours) £20.00
VR512 **512K VRAM Chips** (adds more colours) £29.00

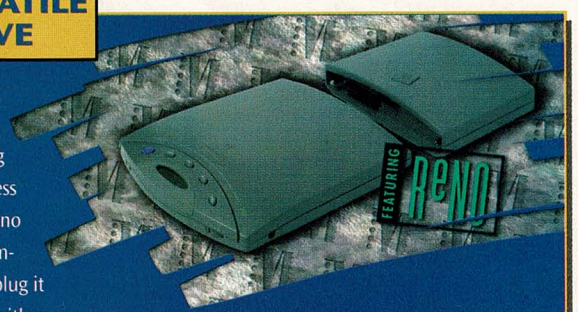
ACCESSORIES

CBxx **Cables** (we have a wide range - please ring) .....call
TNxx **Toners/Ink Cartridges** (for laser & inkjet printers) .....call
FLPx **Floppy Disks** (pre formatted) .....from £0.55
MSMT **Mouse Mat, Wrist Rest, Dust Covers** .....from £5.00
AGxx **Anti Glare Screens** (eases eyestrain) .....from £35.00
SESY **Security Systems** (is your Mac vulnerable to theft?) ...from £29.00

PROGRAMMING

FNTR **Frontier** (first Finder level scripting system for the Mac) ..£295.00
HYPC **HyperCard 2.3** (new version, more power) £95.00
CDWB **Metrowerks Code Warrior Bronze** (680x0 compiler) £65.00

THE MOST VERSATILE CD-ROM DRIVE



Introducing Reno With 180ms access time, this awesome little drive allows you to run demanding games, educational titles or business applications with ease. Connect Reno to your desktop Mac for a fully compatible double-speed CD drive or plug it in to your PowerBook and take it with you.

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Formerly the drive division of IBM, Xyratex offer a unique solution to data storage. Use the drives just like a floppy or optical cartridge, they are small and light but they offer the same transfer rates as normal SCSI Hard Drives - which they are. It is also far more secure than normal drives, simply pull the drive out and take it away with you, the housing stays connected – you don't even need to shut down the Mac!

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CDWG **Metrowerks Code Warrior Gold** (PowerMac compiler) £275.00
ZCP **Symantec C++** (best object oriented programming tool) £295.00
SPCD **SuperCard 2.0** (more powerful than HyperCard) £299.00
THKC **Think C 6.0** (the leading Mac app development tool) £185.00
THKP **Think Pascal 4.0** (excellent developer level compiler) £165.00
FTBS **FutureBasic** (far and away the best Basic for Mac) £79.00

EDUCATION

UP TO 12 YEARS

AMAN **Amazing Animation** (cool animation for kids) £45.00
FNAR **Fine Artist** (great fun paint program) £35.00
KDTM **KidsTime** (5 learning programs for the 3 to 7 year old) £29.00
KDMH **KidsMath** (takes kids from counting to arithmetic) £29.00
KDPX **KidPix II** (wonderful paint program with sound effects) .. £29.00
LPCK **Launch Pad** (animated desktop, secures your files) £25.00
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RDMZ **ReadingMaze** (letter recognition to sentences) £35.00
SPLX **Spelunx** (brilliant game-like learning environment) £29.00

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VYGR **Voyager Astronomy** (fascinating desktop planetarium) ... £105.00
WIWD **Where in World is Carmen DeLuxe** (geography based) £29.00

Special low Education prices are available on some products, including Microsoft, Claris and others, to authorized educational establishments with Educational Purchase Orders.

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7GCD **7th Guest** (an incredible real time 3D adventure) £35.00
HRDN **A Hard Day's Night** (The Beatles Movie on CD) £29.00
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BTCHC **Battle Chess** (full colour animated Chess Game) £35.00
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BMUG **BMUG** (huge collection of public domain and shareware) £29.00
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DDNC **Daedalus Encounter** (3 CD sci-fi adventure) £34.00
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MYST **MYST** (magical mystery adventure) £35.00
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GNGB **Resident's Gingerbread Man** (weird, but 5 mouse rated) .. £29.00
THMP **Theme Park** (create the best theme park ever!!) £34.00
SPTCD **This is Spinal Tap** (the movie and more on 2 CDs) £25.00
JMAN **The Journeyman Project** (amazing 3D adventure) £32.00
EXPL **Xplora** (Peter Gabriel's amazing multimedia CD) £29.00

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3DAT **3D Atlas** (simply wonderful) £49.00
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BRHT **Brief History of Time** (the bestseller) £49.00
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DSTCD **Distant Suns** (astronomy based CD) £65.00
DCLW **Dictionary of the Living World** (award winning) £29.00
NCRT **Encarta '95** (fantastic multimedia encyclopedia) £75.00
RPFCD **Ephemeral Films** (fascinating US archive of films) £23.00
FALCD **For All Mankind** (NASA archive videos from space) £25.00
GRLCD **Groliers Encylopaedia 95** (21 volumes, 9 million words!) . £79.00
HOWCD **How Computers Work** (excellent guide to technology) £40.00
JPTR **Jupiter** (photos of the comet impact) £15.00
MCBT **Macbeth** (the Scottish Play) £65.00

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MICD **Musical Instruments** (Microsoft's excellent entry) £39.00
OEDCD **Oxford English Dictionary** (the whole thing on CD ROM) .£425.00
REDCD **Red Shift** (superb astronomy program) £49.00
SHCD **Shakespeare Complete Works** (at your fingertips) £19.00
SBPCD **Small Blue Planet** (pictures, geography of the planet) £49.00
STTM **Star Trek Interactive Tech Manual** (tour de Enterprise) £29.00
TLFA **Time/Life Astrology** (astrology primer) £19.00
WRPA **Warplanes** (an interactive history) £45.00
WCSCD **World Cup Soccer** (USA 94 and archives since 1930) £29.00

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KDPCD **KidPix Studio** (KidPix plus animation) £35.00
LFCD **Learn to Speak French** (aah... learn to speak French) £115.00
MWCD **Math Workshop** (math tutoring 5-12 age group) £34.00
PAWCD **P.A.W.S.** (hysterical dog's eye view of the world) £25.00
PTWL **Peter and the Wolf** (interactive fairy tale) £35.00
RUFF **Ruff's Bone** (adventures with Ruff the dog) £29.00
TRTH **Tortoise and the Hare** (the epic race) £29.00
UHBCD **Ultimate Human Body** (Dorling Kindersly's one) £49.00
WLJCD **Wallobee Jack/Lost Leonardo** (interactive kids cartoon) .. £19.00

MUSIC

BMTL **EZ Starter Kit** (MIDI interface, EZ Vision, book) £175.00
PRMC **Practica Musica** (teaches music theory and ear training) .. £75.00
SONG **SongWorks** (interactive music composition) £65.00
STDI **Super Studio Session** (8 voice composer and player) £69.00
MDIN **MIDI Interface** £45.00

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EASE **At Ease** (secure Finder replacement) £35.00
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NDBP **DiskDoubler Pro** (DiskDoubler,AutoDoubler,CopyDoubler) £65.00
FTF **First Things First** (brilliant alarms, reminders, to do's) £25.00
HDTKP **Hard Disk Toolkit** (Personal Edition) £59.00
HDTK **Hard Disk Toolkit** (the best formatter and checker) £125.00
MCTA **MacTools Pro 4.0** (disk safety and protection utility) £79.00
NUTD **Now Up-To-Date** (calendar and reminder system) £65.00
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SFDL **Stuffit DeLuxe** (famous file compression program) £59.00
SUIT **Suitcase 2.14** (manage your font menus) £45.00
WNWT **WindoWatch** (logs time usage of windows) £85.00

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DKGD **DiskGuard** (control access to your hard drive) £69.00
FLGD **FileGuard** (serious protection for specific files) £145.00
MPR1 **MacPrefect** (secures most aspects of the Finder) £30.00

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AFDK **After Dark 3.0** (famous screen saver with many modules) £25.00
DSNY **Disney Screen Saver** (simply magical) £27.00
STAB **Ultimate Star Trek** (screen saver and posters bundle) £39.00
FLTS **The Flintstones** (cartoon, movie and now...) £19.00
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ARCADE

MBSL ✔**Best Sellers Pack** (Hellcats, Spectre, SuperTetris) £32.00
CRQ2 ✔**Crystal Quest 2** (Britain's favourite game) £22.00
DM2 ✔**Doom II** (you may have heard of this one) ..... call
FSHB ✔**Flashback** (Nintendo like adventure shoot-em-up) £25.00
FOTF ➢**Fury of the Furries** (Nintendo style platform game) £25.00
LEM3 ✔**Lemmings/Oh No! More Lemmings Bundle** £22.00
MRTH ➢**Marathon** (prepare to meet thy "Doom") £39.00

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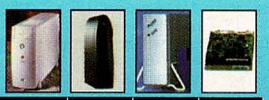

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1400Mb				
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4000Mb		£1225		£895

CE80 **d2 88Mb Syquest Drive** £265.00
R20C **d2 200Mb Syquest Drive** £395.00
D2128 **d2 128Mb Optical Drive** £399.00
X231 **IBM/Xyratex 230Mb Optical Drive** £475.00
D2DF **d2 4/8Gb DAT Drive** £885.00
NOM1 **44Mb Nomai Syquest Compatible** £26.00
R45C **44Mb Syquest Cartridge** £32.00
R80C **88Mb Syquest Cartridge** £36.00
R20C **200Mb Syquest Cartridge** £59.00
R12C **128Mb Optical Cartridge** £25.00
R23C **230Mb Optical Cartridge** £35.00

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CDRN **Reno Portable CD ROM Drive** £245.00
ZIPA **Iomega ZIP Drive** £139.00

PGLG ➢**PegLeg** (totally addictive invaders style game) £23.00
PROP2 ✔**Prince of Persia II** (more and better, can you resist?) .. £29.00
TRZL ✔**Triazzle** (brain teaser from Berkeley Systems) £19.00

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A10A ✔**A10 Attack** (the best flight sim around) £39.00
CYAC ➢**Chuck Yeager's Air Combat** (fly with Chuck) £34.00
CRBL ✔**Crystal Caliburn** (classic pinball game) £32.00
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FLYN ➢**Flying Nightmares** (strategy and flight sim in one) £22.00
FLSM ✔**Microsoft Flight Simulator** (serious, realistic, accurate) .. £35.00
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PGAG2 ✔**PGA Golf II** (far and away the best Golf game) £29.00
PLPG ✔**Links Pro Golf** (so realistic you'll think you're there!!) .. £34.00
SIMC2 ✔**Sim City 2000** (design and run your own city) £29.00
SIMT ✔**Sim Tower** (control and manage a tower block) £29.00
SYND ✔**Syndicate/Populous I** (control the world) £34.00
SIMC ✔**Sim Classics** (Sim Life, Ant and City in one bundle) £29.00
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PWPK ➢**PowerPoker** (dozens of different poker games) £29.00
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KEY ✔ works on most Macs, ➢ Colour Macs only.

Please check whether your chosen game is compatible with your Mac when ordering

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BK5010 **Internet Starter Kit Mac** £27.50
BK2180 **Macworld Photoshop V3.0 Bible** £38.99
BK4055 **Little Mac Book 3rd Ed.** £14.99
BK6035 **Quark Xpress Book 4th Ed.** £29.99
BK2015 **Photoshop Wow Book** £31.61
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MacWrite Pro (save over £100!) . . **£39.00**
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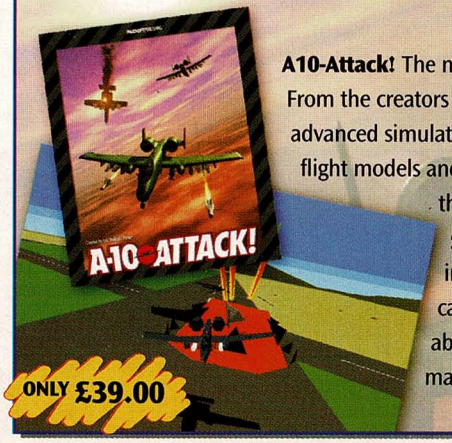
Both together (save over £200!!!) **£135.00**

THE HOTTEST FLIGHT SIM FINALLY LANDS!



A10-Attack! The most eagerly awaited flight simulator, ever! From the creators of award-winning Hellcats comes the most advanced simulator to hit the Mac. With physically accurate flight models and intriguing missions, A-10 Attack delivers the hottest combination of action and strategy around. Attention to details such as moving flaps, object dynamics, landscapes with canyons, intelligent enemies and the future ability to plug in to a 'Virtual Battlefield' with many network players, ensure A-10's success.

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PowerPC PowerPC PowerPC

PERFORMA 5200 8/500/CD

NEW PRODUCT

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Based around the brand new Power PC 603 chip running at 75MHz, the 5200 combines the CPU and a 15" multi-scan monitor in one housing. It has a built-in quad speed CD ROM drive and the (optional) TV and video capabilities of the Performa 630. With its 256k cache memory, it is equivalent in speed to a Power Mac 6100 for a lot less. Optionally includes ClarisWorks and other software.

from £1265

PowerPC PowerPC PowerPC

POWER MAC 8100/100 8/700

optional CD, AV

from only £2445 CPU only

PowerPC PowerPC PowerPC

POWER MAC 9500/120

16/1Gb/CD/Video Card £3725

NEW PRODUCT

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£4375

POWER MAC 9500/132 16/2Gb/CD

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630D **Performa 630 4/500 & Performa Display** & keyboard, ClarisWorks 2.1, PC Exchange £895.00

630E **Performa 630Plus 8/500/CD & 15" Multiple Scan Display** & software £1045.00

630Q **Performa 630Plus 8/350/CD/TV/Video & 15" Multiple Scan Display** & software £1225.00

630H **Performa 630 12/500/CD/DOS & 15" Multiple Scan Display** £1475.00

5200B **Performa 5200Plus 8/500/CD** & s'ware £1375.00

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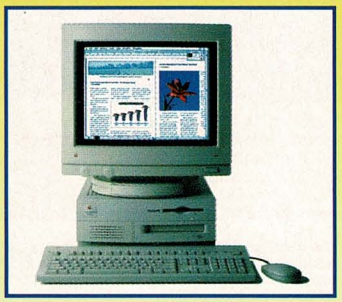

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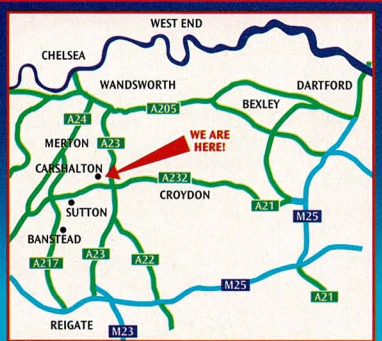

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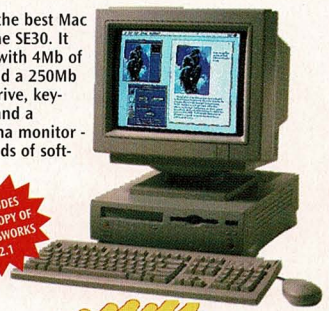

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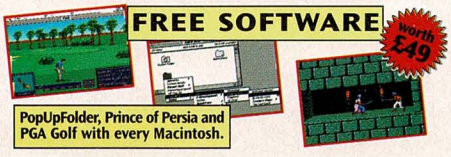

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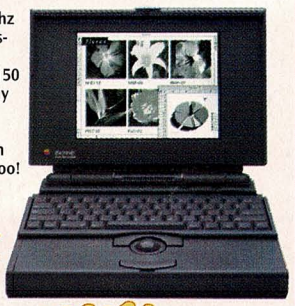

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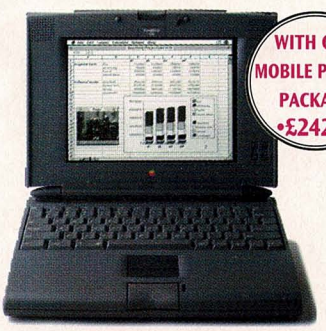

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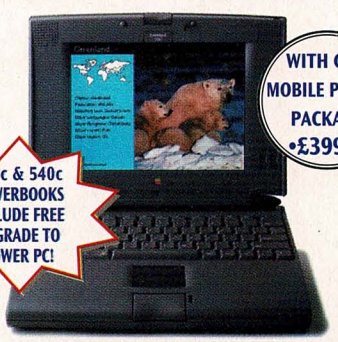

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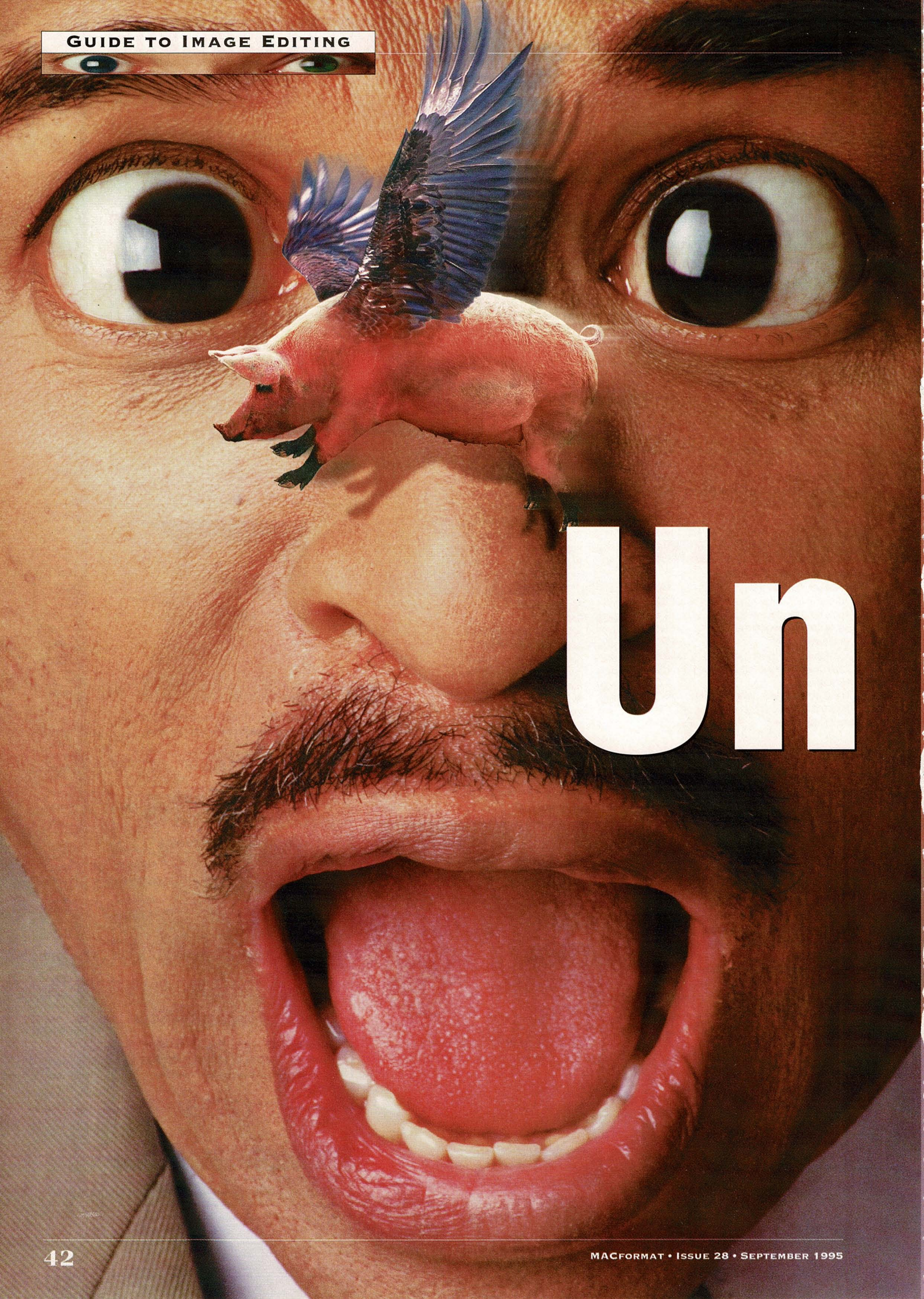


Un

Sometimes a picture may say a thousand words, but just not the right ones. Marcus Dyson shows how to turn that image around.

real!

Whether it was Apple's intention or not, the Macintosh very quickly established itself as the premier computer for desktop publishing. DTP is the combining of words and images on a page, or in a document, with sufficiently sophisticated formatting to pass for design. The advent of *PageMaker* and affordable quality printers about the same time sparked the DTP revolution. As soon as it got going, it gained momentum in a way that no-one would have expected or dared to predict. But for the Mac to offer a complete solution to desktop artists, another element was required. The machine had to be able to generate and manipulate quality images too.

The Mac had its own bitmap paint package pretty early on in its existence, the worthy but uninspired *Mac Paint*. While that program may have been uninspired, it was certainly inspiring, and before long Mac users had a whole selection of 8-bit paint packages to choose from. These packages could generally manipulate 256-colour images at fairly low resolutions. Such packages were fine for producing artwork designed to be shown on screen, because Macs of that day could only display 256 colours at a 640 x 480 pixels screen resolution. But for printed work, designers were forced to rely on professional repro houses to scan and retouch their photographs.

A few years ago, I asked a repro house to create an elliptical vignette with their new multi million pound commercial 'system', which they claimed could do 'anything'. After a few hours trying, they declared it impossible. This effect took me three minutes to do in *Photoshop*...

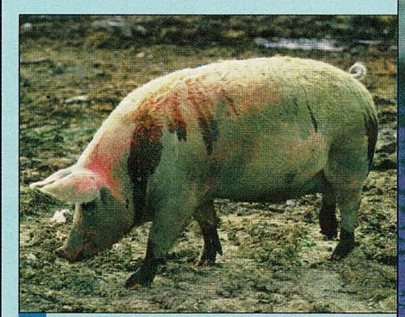
Once desktop scanning arrived, the DTP world demanded something more, and software producers were not slow to respond. By the (very) late 1980s a new brand of paint packages began to appear that could handle extremely large images by using virtual memory. These packages were designed to work with 24-bit graphics boards, which gave the user the ability to display true colour images on screen. Then, in early 1990 Adobe released *Photoshop*, and the world of

Continued on next page

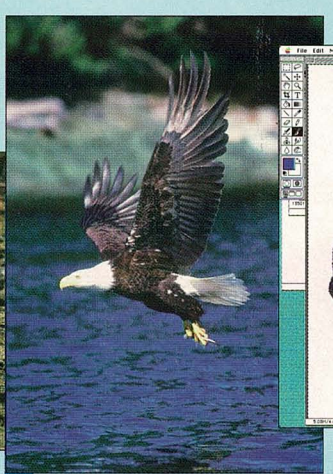
'Clip photo' CD-ROMs reviewed – see page 58

HOW YOU CAN MAKE A PIG REALLY FLY

To make the flying pig picture on the cover and the opposite page took many hours, using *Photoshop 3.0* on a PowerMac 7100. Here's how we did it – the techniques and tricks apply in the humblest of programs too!

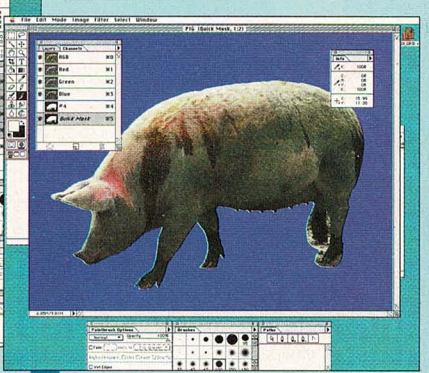


1 The most suitable pig we could find was from the Corel series of pictures on CD-ROM. Unfortunately, the legs are in the wrong position, and she is too muddy. This illustrates one of the problems of using clip photos, rather than taking your own.



2 This bald eagle, again from the Corel series, is also side-on to the camera, and its wings are well-defined and striking. Just the thing to graft onto the pig's body.

3 First we cut out the eagle's wings using *Photoshop's* 'Quick Mask' tool, making sure to include part of the bird's body, which will fade into the pig's shoulders later in the process.



4 Next the pig is cut out using the same tool. This 'paints' out the background with blue, but has the advantage that you can reverse the process and paint back the surrounding picture at any time.

Continued on next page

Do you enjoy those 'spot the difference' puzzles? No prizes for this one, but take a look at these two pictures. They both contain the same information, or parts of it...

In the second picture, cloning and resizing were used to move some image elements and erase others. The fine detail work can be time-consuming, but the basics take moments.

TRY IT OUT!

Use the save-disabled version of *Color It!* and the 80-plus clip photos on this issue's CD-ROM to try image processing for yourself! Next month we start a new tutorial series taking you step-by-step through various image editing tasks which you can try using a range of graphics software. Don't miss it!

desktop repro (as it came to be known) was changed forever. This program single-handedly sparked a revolution which has had significant effects on how design work is produced worldwide, and has had incalculable financial implications in the world of commercial reprographics.

Reprographics is the art (or science, even) of converting an image, be it a 'normal' photograph, a drawing (called reflective artwork) or a slide or transparency into the film that printers use to create a colour image. Traditionally it was done by a photographic process involving halftone screens and coloured filters. But the repro industry itself had been revolutionised by computers in the '70s and early '80s. A company called Scitex had invented a range of computerised systems which were automating the repro process. Many commercial repro houses were still paying off the loans on these (physically) large systems when the Mac, *Photoshop* and desktop scanners took a huge chunk out of their market. Some companies went bust, some soldiered through with their cumbersome technologies, but the most adaptable bought Macs and used them to control their high quality commercial scanning equipment and to manipulate the superb images these machine could produce.

A rose is still a rose by any other name, but it isn't always the same colour, especially after levels, curves, posterisation and saturation functions have been applied in *Photoshop*.

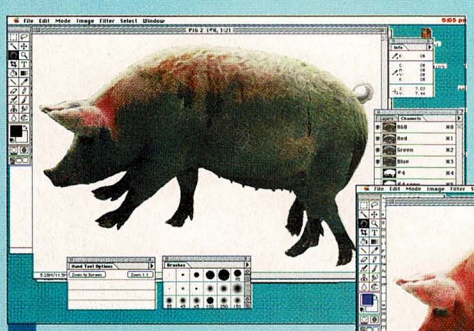
While it could never be argued that a desktop scanner could equal the quality of Scitex machines (Future Publishing use a Scitex SmarTwo to do many of the scans in MACFORMAT and their other magazines), the Mac had such a friendly operating system that both artists and repro operatives were soon attracted to the platform. *Photoshop* was soon delivering image processing effects that took a skilled operator hours to perform on a dedicate repro system, and some simply could not be achieved by systems costing the best part of a million pounds.

And as we explained in our plug-ins feature in last month's MACFORMAT, *Photoshop* also defined a new standard for image processing filters, which could be used by other paint and image processing programs to give them added abilities.

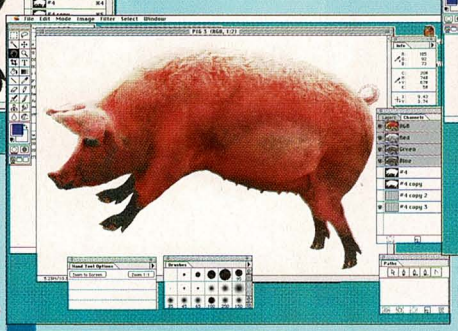
As Macs have become more powerful, RAM and hard drives have become cheaper, and the ability to display thousands or millions of colours has spread downwards through the Mac range, making image processors more useful to more people. And in the five years since *Photoshop* was bestowed on the world, desktop scanners

Continued from previous page

HOW YOU CAN MAKE A PIG REALLY FLY

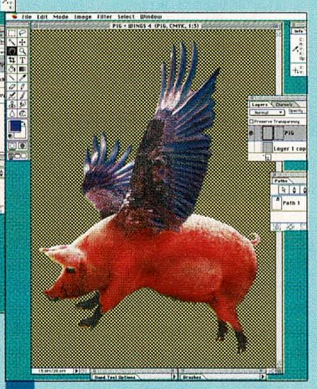


5 To make the pig look as if it isn't really standing, we copied the front leg, then rotated it slightly to point forward. It was then pasted behind the existing front leg, and a similar process was used at the back. The extra legs were then deleted. The whole pig was then rotated slightly clockwise, in order to make the shoulder the highest point.



6 In order to clean up the pig, the colour of the clean patch behind his ear was selected. This colour was then sprayed over the rest of the body using the airbrush tool in colour mode selected from options.

7 The wings were enlarged a little, then manoeuvred to fit on the pig's back. Although the pig now has wings, they still look unconvincingly glued on.

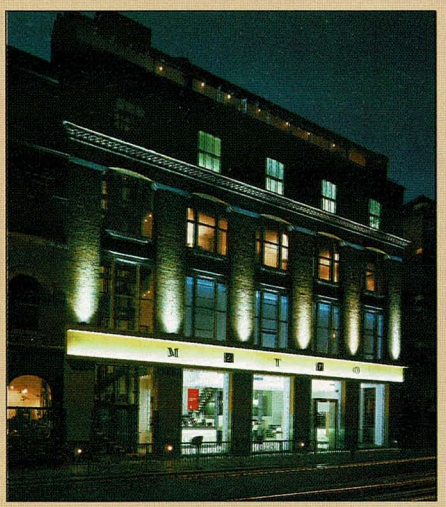


8 The wings are now made to blend in with the pig using the clone tool on a low setting. A little artistic retouching is needed to finish it off.

WHEN YOU NEED PROFESSIONAL HELP...

Image manipulation may be possible on a modest desktop Mac, but if you're trying to perform complex operations, or editing a large high-res image, or using anything less than a very powerful Mac, you may be spending a lot of time watching progress bars inch their way across your screen. Or you may need a result that your software isn't up to. In practice, you might be better off taking your job to a bureau which has made the investment in professional-standard kit. But of course you'll want someone with more expertise than just a neighbourhood DTP or print shop.

There are plenty of excellent bureaus around the country, but few can boast such spectacular purpose-built premises as Metro Imaging in London's Clerkenwell Road. Metro provide not only a complete range of standard photographic services, but also offer retouching and image manipulation services on both Macintosh and Barco Creator. Their Mac workstations are PowerMac 8100/80s with 650Mb internal hard disks and 212Mb of RAM, supported by two Micronet Raven two-gigabyte disk arrays – a bit more than your average home Mac setup, but decidedly handy when the files being worked on are typically 50 to 100Mb in size!



If you're down London's Clerkenwell Road and see this purpose-built building, you'll know it's Metro Imaging.

Metro use *Photoshop* and *Live Picture*, and also offer training in both programs. Their two-day courses are taught on PowerMac 8100/100s, with Wacom graphics tablets and 20-inch 24-bit colour monitors, so you can get on with learning what the program can do and discover the waiting part later on your own machine...

Metro's associated bureau provides a complementary scanning and outputting service, with a comprehensive range of output options – negative or transparency, from 35mm to 14 x 11-inches, and direct to photographic quality print on their Fuji Pictrography system, as well as large format inkjet prints and laser copies.

For more details, contact Metro Imaging on 0171 865 0000.

have increased in quality significantly. While purists might still demand 'traditional' scans, an army of publications around the world are managing quite nicely with something as basic as the Nikon CoolScan.

Now any Mac owner can improve the quality of their scanned or video-digitised images with an image processor, or produce great computer art using the immense creative power of these programs.

So what is image editing?

We've determined that image processing is a Good Thing, but what exactly can it do, and why would you want to do it?

Image manipulation (or editing, or processing) is really very much a catch-all term, covering a range of functions that your Mac can tackle:

- Image acquisition: a basic one, but most image processors can also act as scanning software. Many desktop scanners ship with a *Photoshop* plug-in, which enables them to scan directly into your plug-in-compliant software. This saves the scanner software writers the trouble of having to include dedicated image processing functions and it puts the image right where you need it in order to make any corrections or manipulations you may require.
- Colour and exposure correction: no matter how well scanned a picture is, the chances are that it will require some colour correction – whether it is because of the scanner tube's colour temperature being inaccurate, or the original picture having been taken in adverse lighting conditions.

Modern image processing packages can make corrections to colour, brightness and contrast all in one go using the Auto Levels feature, but they also enable you to make custom colour and contrast adjustments to achieve specific results.

- Colour manipulation: for outright psychedelic effects, or just to create a specific mood, colour can be affected drastically in an image. Tones can be flattened to create a 'posterised' effect, or colour can be removed completely to give a black and white image. Colours can also be reversed to create a 'negative' image.
- Image compositing: just as with computer paint packages, you can select part of the image and drag it to somewhere else on the picture, or even copy and paste it into another picture altogether. The difference is that with image processing packages

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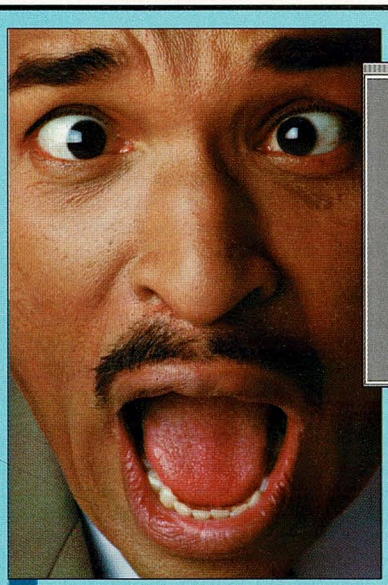
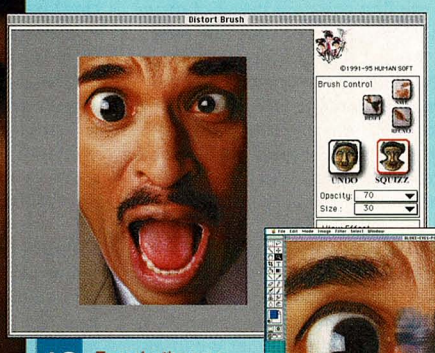
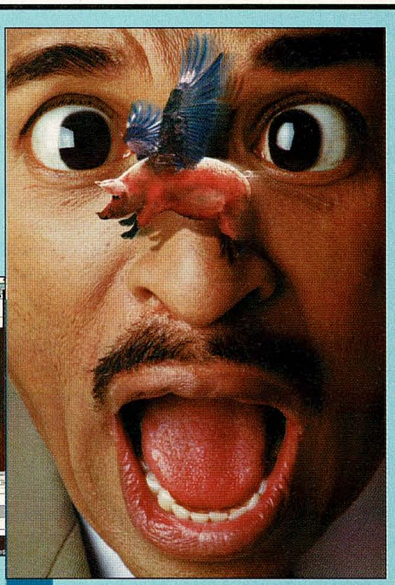


9 For the face, at full A4 size, we needed a particularly high resolution image, so we used a face from Photodisc's Signature series, which were the best quality photos available.

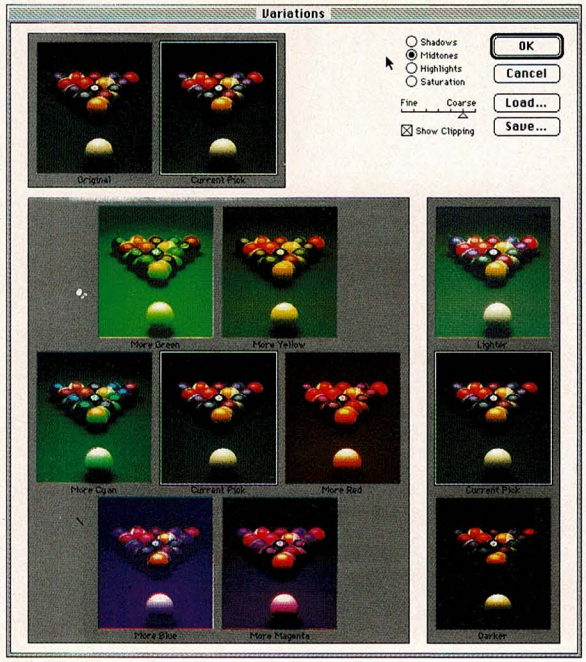


10 To make the eyes bulge, we used the *Squizz* filter (from CGS Computerbild on 0181 679 7307) in brush mode. This can make an image warp but it maintains quality and sharpness.

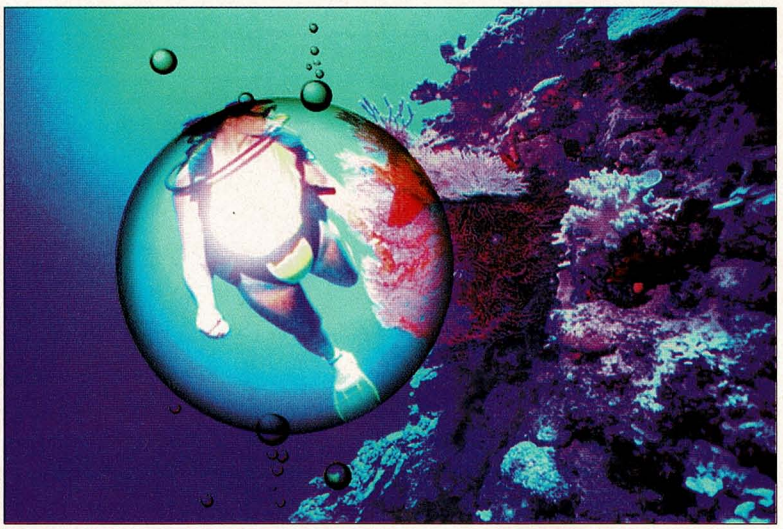
11 A shadow of the pig was created by producing a semi transparent silhouette and bending it to fit the nose. The motion blur filter was used on the completed pig to reinforce the flying effect.



12 The final stage is to paste another copy of the completed pig, slightly offset, over the top of the shadow and the blur. A word of warning: at this point the *Photoshop* file was 60Mb in size!



Few image processors make the job of colour and exposure correction as easy as *Photoshop* does. This window can be used to change both, and even to adjust the saturation of an image.



This scuba diver was placed inside this huge bubble by the power of *Photoshop*'s Spherise and Lighting Effects filters. Most image editing programs can achieve comparable effects, but not always as easily.

you can make the joins so difficult to detect that most people simply don't. The tabloid press in particular have made good use of this, and their relatively low quality black and white images hide the tampering even more. As a society that has come to trust what we see with our own eyes, we are currently exceptionally susceptible to the false evidence presented by 'doctored' photographs, and advertising agencies are exploiting this on almost every billboard in the country.

■ Image manipulation and special effects: the most obvious side of image processing is often the most impressive. Image processing packages can warp, bend and stretch images to create astounding and arresting images. The most popular of these effects is 'morphing', using a combination of pixel shifting and transparency effects to miraculously change one thing into another. It's been used in virtually every kind of advertising going – often to hide the fact that the advert had no real originality, but sometimes to great effect.

Other possible effects include 'lighting effects' (a new function in *Photoshop 3*, which improves on the old, and rather useless, Emboss command) extrude, spherize, shear, ripple, zig-zag and wave.

All of these effects are achieved mathematically. This may sound like a strange way to achieve a result which is so obviously visual, but it's the truth nevertheless. Since a computer image is made up of three channels of digital information, any change to any of these channels will affect the look of the image. And because the information is digital, it can be manipulated by simple maths – or, more accurately, by complicated algorithms. That's why more powerful computers are required for complex image processing tasks.

All image processors do is manipulate these channels in predetermined (or occasionally user-definable) ways in order to deliver a required effect. Whether they boost the intensity of one channel to give the picture a hue, or reduce the number of mid-tones in a channel to increase the contrast, all image processors are actually doing is number crunching. When an image is warped or distorted, a positional translation is applied to a pixel, and its colour and brightness are then displayed at a new location. Unexciting? The results can be stunning! **MF**

PICTURE PERFECT PROCESSORS

If you're in the market for an image processor, it can be a confusing place to be. Here's a quick summary of the programs to consider, and what their unique selling points are.

■ *Color It!* (a save-disabled but otherwise fully working version is on this month's MACFORMAT CD-ROM. The complete version comes bundled free with plug-ins program *Kai's Power Tools* available at £175.08 from Principal on 01706 832000): basically a true-colour paint package, *Color It!* has some image processing capabilities. However, when it is combined with a selection of *Photoshop* plug-ins it becomes a powerful budget-priced image processor. See our full review of the new version of *Color It!* on page 52.

■ *PhotoFix* from Le Pixel (available from Linographic on 01252 376103), £149 (the junior version is £57.58): an excellent low price image processor if your Mac has more modest specifications. *PhotoFix* can run quite happily on any colour Mac with just 2.5Mb of application RAM and 2Mb of hard drive space. See the review in MACFORMAT 24.

■ *Live Picture*: the first of a new breed of image manipulation packages, *Live Picture* can work on very large images very quickly, because rather than applying all the calculations immediately, it stores them up, and then renders them later. Version 1 was extremely expensive – over £4,000 – but the price has been reduced drastically, and there will be a review of version 2 in MACFORMAT very soon.

■ *XRes* from Fauve Software (available from CGS Computerbild on 0181 679 7307): this is another package which works in a similar way to *Live Picture*. The first version was okay, but lacked a few features. See what we think of the latest release on page 56.

■ *Photoshop* from Adobe (available from Principal on 01706 831831), £851.88: the mother and father of all Mac image processors, *Photoshop* remains the best all-rounder for those with a powerful machine and a bulging wallet. It boasts an unparalleled number of features, and offers painting, image retouching and image manipulation features all in one superb package. The user interface is incredible, and there are a huge number of third party plug-ins for the program which extend its features even further. *Photoshop* truly is a jack of all trades and master of most.

The package's only downside is its system requirements: a Quadra or PowerMac, between 16 and 24Mb of RAM and over 20Mb of hard drive space (just to install the program – you'll need even more for its built-in virtual RAM feature).

■ *Painter* from Fractal Design (available from Letraset on 0171 928 4311): originally a 'natural media' paint package, *Painter* now ships with the 2X image processing add-on, which makes it a worthy opponent for *Photoshop*.

■ *Mirage* from Mirage (0115 9532001): the latest contender for the image processing crown. We will of course be reviewing it in MACFORMAT as soon as we can get our hands on it.

■ *Debabelizer/Debabelizer Lite* (available from Computers Unlimited on 0181 200 8282), £381.88: this image processor excels at batch processing and image file translation. But it can accept *Photoshop* plug-ins to give it a whole host of extra abilities.

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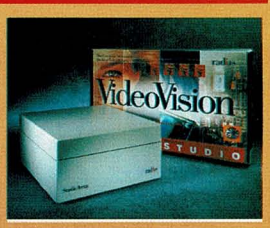

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Restoration Art

Modern image manipulation software can replace much of the painstaking process of traditional print restoration. Ofir Gal compares old and new methods.

Hannah Gal is a professional photographer who, until recently, restored damaged and old prints by hand. Restoring prints in this way takes years of experience to reach a sufficient level of professionalism. But the photographic industry is being revolutionised by the computer and powerful image manipulation programs like *Photoshop*, providing photographers with a more efficient means of restoring prints.

The challenges

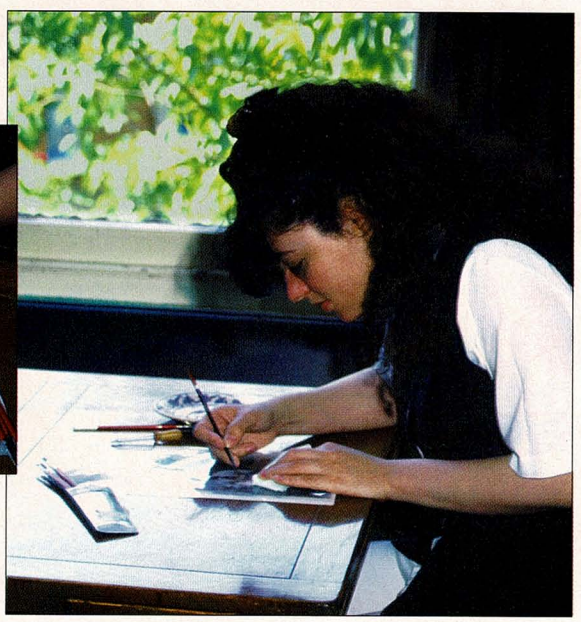
Most old prints exhibit two problems. First, the print has suffered years of exposure to daylight. This exposure creates an overall pale image, lacking in detail – some details disappear completely and need to be reinvented. In addition, many photographs have been creased, scratched or stained. Stains can come from any substance imaginable, mostly ink, food and drink. Some prints are kept folded for years, creating a crack in the emulsion throughout. In the worst scenario, people try to prevent further damage by taping over the crease. On removal, this usually leaves a yellow stain behind and even more damage.

Manual restoration

Restoration is not a service every photographer can offer. Most find retouching even the odd speckle on prints a nuisance. Coming to photography from painting, Hannah Gal finds the use of brushes, colour matching and application relatively easy. The reinvention of details calls for some artistic skill, as does general 'evening up' of the image. Because of the very direct hand to paper application, the end result inevitably carries the artist's character. It also requires considerable photographic knowledge.

The manual restoration process starts by re-photographing the original

This 7 by 5-inch print is very damaged. Scratches, creases and stains are clearly visible. It has been kept folded for years and was later taped over. When removed, the sticky tape left deep yellow stains across the print. Details on the baby's face are almost completely faced. The print also lacks contrast and needs livening up.



Hannah Gal is a professional photographer. Her clients include Amnesty International, advertising agencies, the NSPCC and the Liberal Democrat Party. She is also a regular contributor to the *British Journal of Photography* and *Professional Photographer* magazine. Here you can see her in action (above and right), painstakingly restoring this photograph.

IDEAL MODELS

Do you lust after (or envy) those perfect models you see in certain magazines? Well, beautiful those people may be, but they're far from perfect. Nearly every photo will have been retouched in some way, to cover a spot, an unsightly mole or a shiny nose... So never take a photograph at face value.

The original image on the left shows a clearly visible crease. The damage is repaired by repeatedly applying highly diluted retouching ink with ultra-thin paintbrushes. The result is shown on the right.

damaged print. To maintain high image quality and minimise loss of sharpness, medium or large format negatives are used. A large black and white print on fibre-based paper is then made, on which any adjustment of contrast and brightness is done. All the painstaking restoration is applied to this print.

Retouching

Stains are slowly bleached with a special solution, until the desired tone is reached. This is done using a brush with highly diluted photographic bleach – a slow and gradual process. The print is then washed to remove the bleach residue, halting its action. For the next stage, Hannah uses ultra thin painting brushes. She applies highly diluted retouching ink to remove the scratches. It's impossible to just paint over the print. The ink has to be applied gradually, building layer upon layer until the desired effect is obtained. Since even black and white photographic papers have distinctive colour characteristics, matching the retouching fluid tone to that of the print is crucial. It involves using specialised retouching kits with ink to paper matching charts.

The whole print has to be touched up and 'freshened' up. In most cases, the contrast needs to be increased. Important features, such as faces and clothing, are enhanced and the background is evened up. In some areas details have completely disappeared and need reinvention. If this includes a piece of period clothing or jewellery, a trip to the local library might be necessary for research. When the retouching process is finally complete, the print is re-photographed. This produces the negative of the final restored print where last adjustments of contrast are applied.

The manual process is slow and needs careful planning and handling. The work has to be done in a particular order. After bleaching, for example, the print is washed, followed by retouching. If it were done in reverse order, the retouching ink would wash off. This method requires photography and printing knowledge as well as a steady hand with a paintbrush. The major requirement, however, is patience to take you through the various stages. In the hands of a skilful retouching expert such as Hannah, the results can be stunning. The cost to clients can be pretty stunning too, because the restoration process is so highly time-consuming.

Enter the Mac

After seeing a demonstration of *Photoshop*, Hannah was convinced of the potential of computers in her field. While many photographic experts are still debating the pros and cons of the digital age, she decided to go ahead and try it out for herself. A Mac was the obvious choice. She quickly discovered that, unlike the manual methods, computer retouching is mess free and quick. She also learned that, just as before, the new technology requires a high level of skill and a lot of practice. But, in some ways, the computer shortens the process and simplifies it. You work straight from the original and certain lengthy stages of the process are eliminated – for example, there is no need to photograph the print, process and enlarge twice.

The digital process starts by scanning the original print, taking the final print size into account when you do

DODGE & BURN

Lightening or darkening an image is one of the trickiest procedures using traditional methods: when they print a photo in the darkroom, the technicians have to use a wand or mask to block light from parts of the picture to be lightened, or mask the parts surrounding areas to be darkened so they get proportionally more light from the enlarger. It takes a lot of skill and experience. *Photoshop* makes it faster and easier – and you can always Undo if it all goes wrong!

Continued on next page

THE TRADITIONAL RESTORATION PROCESS

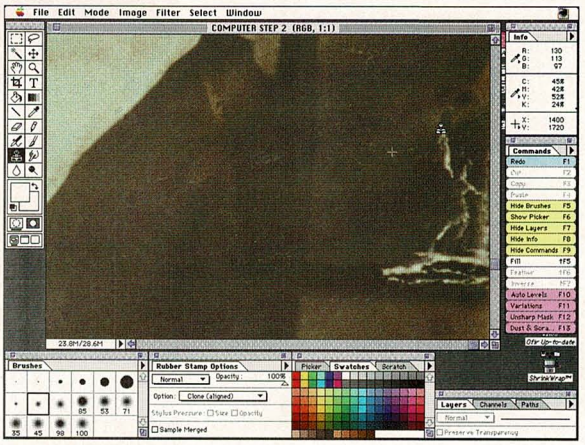
This is how it's done the slow way! You need a very steady hand, extensive knowledge of photography and painting, and a hell of a lot of time and patience. Below we've shown the three main stages of the whole painstaking process.

A 10 by 8-inch copy on which all retouching work is done. It is printed at higher contrast on fibre based paper. Stains are bleached out first and then scratches are tackled. Here, the prominent crease on the mother's hair was removed.

All stains and scratches are now gone. Details on the baby's face and blanket have been restored and the background has been evened up considerably. In addition, the print is now higher in contrast.

According to the client's wishes, the print has been dipped in a brown photographic toner to achieve a sepia effect which is evocative of old photographs, if not necessarily an accurate recreation of the original's tone.

so. This is critical – if the client wants a 12 by 16-inch print, the computer set-up would have to be powerful enough to match that. You would need a lot of memory to enable manipulation of a large file size at a reasonable speed. If the original is clear black and white it is scanned as grey scale, which reduces the file size by two thirds. Many prints, however, come with a unique sepia tint that is part of the image's character. This has to be scanned as full colour and creates on average a 25 to 30Mb file for a 10 by 8-inch print. Scanning and outputting facilities are also required, adding to the final cost.



The clone tool is used extensively to copy undamaged areas over stains and scratches. The ability to only clone colour is also useful in some cases.

The scanned image is now manipulated using the vast controls offered in the image manipulation program. *Photoshop* is considered by most as the industry standard and is the one Hannah uses most of the time. One of the many advantages of the computer is that the digital image can be manipulated in any order, according to the user's personal preference.

Tools and filters replace paintbrushes and darkroom printing. The tools give a vast selection of brush shapes and sizes. Hannah can use a sharpening tool to selectively sharpen a chosen area or a dedicated tool to pencil or airbrush a detail in. Programs even offer tools that simulate dodge and burn (darken and lighten) as practised in the darkroom. The possibilities are simply immense.

Cloning

The cloning tool is probably the most important in the restoration process, and is also a good way to demonstrate one difference between this and the traditional method. The print shown here has been kept folded for many years. When unfolded, a large white crease was revealed across it. Manually, not only will the print tone need to match the ink's, but the actual application of ink to paper will take a considerable amount of time. A single scratch can take over an hour to cover thoroughly. The cloning tool, in stark contrast, does the job in just seconds. You can choose the part of the image you wish to clone and control the opacity level, brush size and shape to apply with. The healthy parts of the image that surround the scratch are then carefully cloned over it, until it disappears completely.

For thinner scratches and lighter dirt, Hannah uses a *Photoshop* filter called *Dust and Scratches*. This filter cleverly eliminates unwanted blemishes. It does this perfectly by replacing scratches with the surrounding colour. If you use another program, the clone tool can do the job just as well. Again, this process takes minutes instead of the hours it takes manually.

Image enhancement

Once the obvious damage has been removed, you can enhance colours and contrast to bring the faded image back to life. Manually, contrast is increased by printing on a higher contrast (grade) photographic paper. This requires the preparation of chemicals and experimentation until you reach the correct exposure. The **Contrast-Brightness** dialogue box in *Photoshop* or similar programs not only saves time but also gives a great degree of control. Contrast can be subtly adjusted and the results are instantly visible

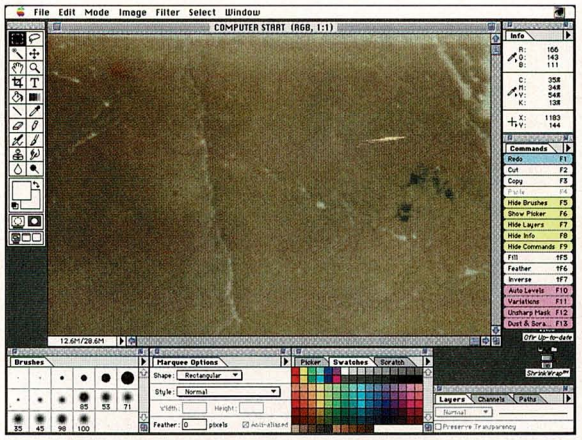
RESTORING A PHOTOGRAPH ON THE MAC

Working on your Mac, you need to be skilled with image editing software, rather than relying on your painting skills. Dealing with fine detail with a mouse or a stylus can be tricky, but the final result will be just as professional as the traditional way, and takes far less time.

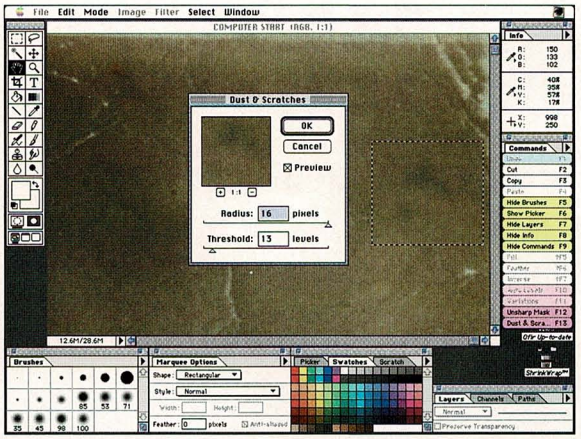
The original print is scanned in full colour to maintain the unique sepia tone, though inevitably this results in a much bigger digitised file, meaning it takes a more powerful Mac and more RAM to manipulate it. Using *Photoshop's* invaluable *Dust and Scratches* filter, minor scratches are removed. The cloning tool was used to remove very dark stains and creases such as on the mother's hair and around the baby's head.

All stains and scratches have been removed. The colour on the mother's arm was restored using the colour picker to sample colour from the undamaged area. This is one area of the procedure where the Mac makes life infinitely easier than it was with traditional methods: there's no need to painstakingly mix colours and test them to try to achieve a match – you simply 'lift' the colour that's already there and put it down where you want it. A low opacity brush was used to apply the colour.

The Marquee tool was used to select the stains on the baby's face and blanket. The surrounding area is too small for cloning, so careful colour matching had to be done instead. Once selected, levels and selective colour were manipulated until the desired colour was reached. Details added to the baby's blanket and face and the background were smoothed out. RGB (red/green/blue) Levels were also adjusted to liven the image up. Finally, the image was cropped. Since it was scanned in full colour, the original sepia tone was retained.



Above is the original damaged image, enlarged to make working easier still. *Photoshop's Dust and Scratches* filter can work miracles with careful setting.



The dark stains are almost completely removed in an instant. By hand, this would take hours, slowly dabbing stains with very dilute photographic bleach.

– the various sharpening filters are also invaluable.

Output

The final stage of this process is outputting to either print or transparency. This relatively simple process is often complicated by the lab/client relationship. The colours we see on the screen are not necessarily the ones that are printed. The monitor must be calibrated to match that of the lab, and this can take time and money to accomplish. Cost is another difficulty. Outputting to transparency is often a good choice because you can then make more copies. Outputting a 5 by 4-inch transparency costs an astounding £85. New technology enables the printer to read RGB files and so print directly from it. A pictography machine is limited to 7 by 5-inch and 10 by 8-inch sizes. A 10 by 8-inch print will cost an average of £30.

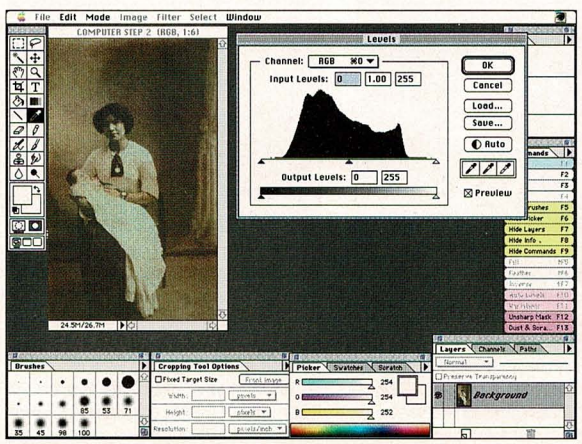
The old or the new?

The Mac has many advantages, but the key word is control. Computerised image manipulation offers time saving at all stages. The results are viewed instantly and there's no messy ink to deal with. Tone matching problems are simplified and artists' brushes are replaced by virtual tools. Scratches that take hours to remove by hand now take seconds. The tedious bleaching of stains is now done by the cloning tool, which matches and applies the colour perfectly. Sharpening the image is very simple with the Mac, but is very complex using the traditional methods. Image manipulation programs enable an overall viewing of the image and offer control on any aspect of it.

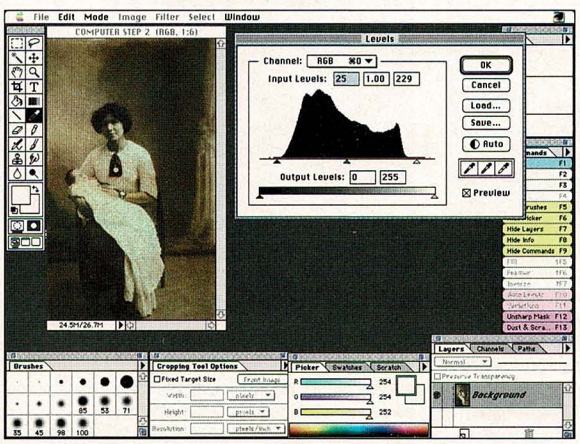
Traditional methods rely entirely on the individual's input. The retoucher here is very much an artist. The use of brushes is precise and the character of the end result depends on the artist's eye. As described, the necessary photographing, developing and printing are time consuming and require a lot of experience. The cost in this case is almost entirely down to the amount of work invested. The advantages of this method are in the spontaneous control you have over the painting brush. The movement is freer and less planned. You do not have to decide in advance on which brush thickness or shape to use. This is crucial when it comes to fine detail, which is tricky to manipulate with a mouse. A brush is much more responsive than a mouse or even a touch sensitive digital pen. Another clear plus of this method is the cost of equipment. Compared to the computer set-up, it is minimal.

At the end of the day, although the Mac can save a lot of time and effort, the traditional methods still have a lot to offer. When dealing with a print in relatively good condition that only needs boosting, the computer can replace the older method entirely. When a damaged print is at hand and details have to be added, tradition still rules. **MF**

Decide for yourself which method is best. The original photograph is on the left, below left is what the picture looked like once it had been restored by hand, and below right is the version restored on the Mac using *Photoshop*.



Adjusting image levels is very helpful with faded images. This image lacks contrast and looks dull. How can you sharpen the contrast and liven it up?



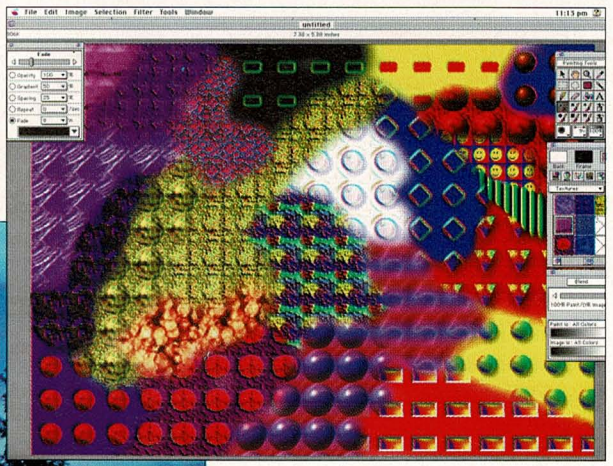
The white and black points are moved towards the centre until they touch the edges of the curve, enhancing the image without losing detail.

MEDIAPAINT

Old photos aren't the only pictures you can retouch on your Mac – you can also retouch movies! Some Mac video editing software enables you to copy frames into *Photoshop* and then re-import them (see our video special in MACFORMAT 21), and there's a new program called *MediaPaint* for image-editing QuickTime movies. Watch for a review in MACFORMAT soon!

Color It! 3.0.2

Professionals may turn their noses up at it, but *Color It!* is advancing in leaps and bounds. Marcus Dyson assesses the latest version of this paint/processing package.



From useful to whacky, *Color It!* comes with a whole host of cool textures which can be used with almost all of the paint tools.

Some years ago Future Publishing had two kinds of art editors, those with *Photoshop* and those with *Color It!*, and there was much smugness and jealousy exchanged between the two factions. The *Photoshop* users were the smug ones for having drunk at the hallowed font of image editing greatness, and the *Color It!* users were the jealous ones for having to make do with what was then a cheaper but fairly second-rate substitute.

The situation has changed considerably since then, but if it hadn't, the *Photoshop* users would have far less to be smug about, and the *Color It!* users far less to be jealous of, because *Color It! 3.0* has just hit the streets, and this version's capable of some things that even *Photoshop* can't manage.

Color It! is essentially a colour paint package. While with each new version the program has featured more and more image processing features, it still lacks the speed to be considered a true image processor, or the compositing features that would make it ideal for photo re-touching. But, then again, it is a fraction of the price of the applications that handle these tasks with more aplomb.

The impression that *Color It!* is first and foremost a paint program is further strengthened by the fact that the **New File** dialogue has a selection of presets that coincide with typical Mac screen resolutions. And while *Color It!* is perfectly happy with the roughly

CREATIVE COMPOSITING WITH COLOR IT! 3.0.2

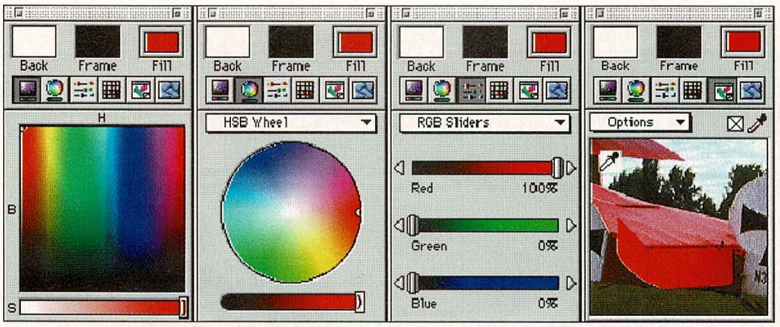
Soviet fighter jets flying low over Alaska. This may have been a common scenario a few years ago, but these days it's probably a lot less common. So if you want a picture of a MiG over the northern-most state, you have two choices: ask the air force of

1 Open the images into *Color It!*. On the **Window** menu, *Color It!* has a **Window Mode** option. When you have opened your first chosen image, select **Full Screen** from the **Window/Window Mode** sub-menu. Now select **Fit** from the **Window/Magnification** sub-menu. This will ensure that the image is as large as possible on your screen. Now open your picture (in this case, the MiG).

2 To put the MiG into the picture of Alaska, we'll have to select the outline of the plane. The easiest way to do this is with the Magic Wand tool. Select this tool and drag it across the sky region of the picture, as shown. This selects most of the sky region. But, as you can see, some areas may not be selected, and some areas of the plane, which you wish to remain unselected, will be selected.

3 Now it is time to use the Lasso tool, in conjunction with the + and – buttons at the bottom of the **Tools** menu, to add to and subtract from the selection. Remember, you can use the magnifying glass to zoom in on any particular areas. You can also hold down the **[option]** key as you use the Lasso tool to enable you to create straight-edged selections between mouse click-points.

4 Once all of the sky and none of the aeroplane are selected, you must invert the selection. To do this, use the **Invert Selection** option from the **Selection** menu. Now just the plane is selected, and it is ready to copy onto the picture of Alaska. Select **Copy** from the **Edit** menu, or use the **[command] C** keyboard combination.



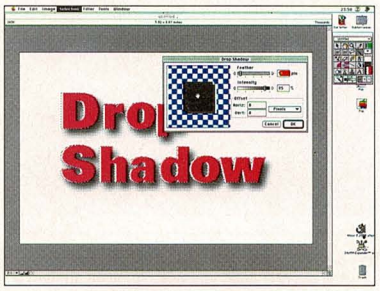
They may all basically do the same thing, but everyone has their own favourite way of selecting colours. *Color It!* has all of them close to hand, all easily accessible from one menu window.

If you have as many plug-ins as I do, then don't press that **About Plug-ins** button. It will go through *all* the 'about' screens of *all* your plug-ins, and there's no way to escape it, except to click through each screen.

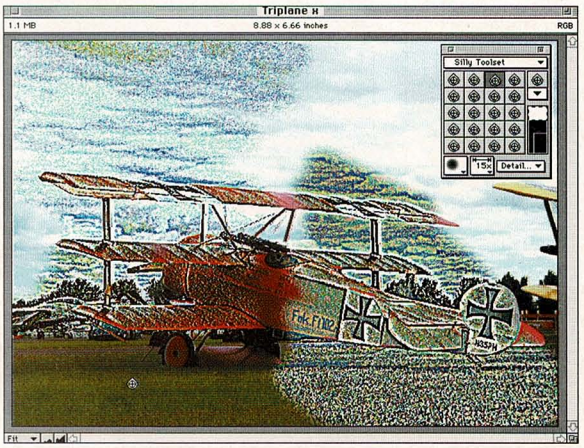
one megabyte file size of a 640x480 image, it begins to chug a little if you expect it to throw around the 1,152 x 870 pixel resolution of a 20-inch screen. For this reason, *Color It!* is ideal if you just want to produce work to display on a 13 or 14-inch monitor – whether it's for games, multimedia or your own pleasure.

But, considering the price, *Color It!* really has some extraordinary features. True multiple undos (up to 16) are the least of these. More impressive still is the program's ability to apply filters selectively; using the Kernel tool you can 'paint' a filter effect onto a picture. Sadly this tool only applies to 'built-in' filters and not the *Photoshop* plug-ins that *Color It!* is compatible with.

A less useful but fun feature is that *Color It!* enables you to paint with textures using any of its brush, airbrush or filled polygon tools. (While we're on the subject, the polygon drawing tool is extremely flexible, offering around ten different user-configurable shape options.) The program comes with a selection of textures, but you should have no problem editing these or creating your own by painting new ones or grabbing part of an image.



Color It!'s built-in drop shadow tool is excellent – the extrude is less obviously useful, but it does have one super feature. You can use the 'extruded' area as a selection, which you can then use to mask an image processing operation (see picture). Why, oh why, didn't they offer this feature for the drop shadow too?



Kernel is a bit of a strange name, but it's an amazing tool. It enables you to 'paint' image processing effects onto a picture.

If they improve the speed, Photoshop could have a very serious, cheap competitor.

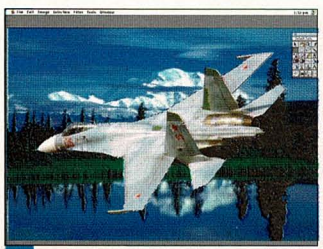
Although the *Color It!* interface could be easier to use in places, some of its features are truly unsurpassable. The main tool palette is configurable, so you can create palettes which only contain the tools you use frequently, with the presets you prefer. Unfortunately, the size of the tool menu, four columns of five rows, cannot be changed, so you are limited to a maximum of 20 tools in any palette, but palettes can be swapped at any time from a simple pull-down menu at the top of the tools menu. In addition to this, *Color It!'s* colour selection menus are the most configurable I have ever seen: almost every imaginable colour selection method is available from one menu window – HSB/RGB swatch, HSB/HSL/RGB/CMY sliders, HSB/HSL wheels, 256-colour palette and scratch pad.

The only real problem with *Color It!* is that it's not particularly fast, especially if you're dealing with larger image

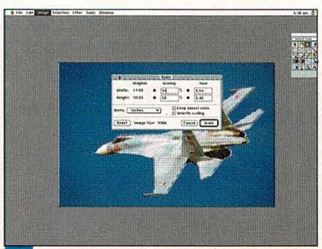
Continued on next page

the former Soviet Union to pose for a few quick snapshots, or make one yourself from stock photos.

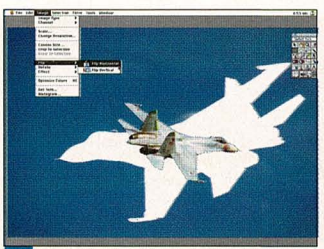
One of the most fun things to do in image manipulation is to take an object and place it on a different background. In the following walk-through, I'm going to show you how I placed a picture of a MiG on a background picture of Alaska. You can adapt the following process to your own needs, using some of the 80-odd clip pictures on this month's MACFORMAT CD-ROM – they're ideal for image manipulation.



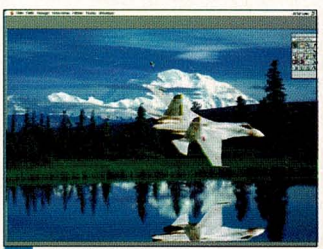
5 Now you've pasted the MiG into the picture of Alaska, which can be done using the **Paste** option from the **Edit** menu, or the **[command] V** keyboard combination. The plane is too big, and if you look at the shadows of the plane's tail fins, you'll see that the light is going the wrong way. So you have to delete the plane and return to the MiG picture.



6 First, you must resize the plane using the **Scale** option from the **Image** menu. While the plane is still selected, choose **Scale** and then enter an appropriate amount in the scale requester box which appears. Here we've used 50% – you can use any size you like.

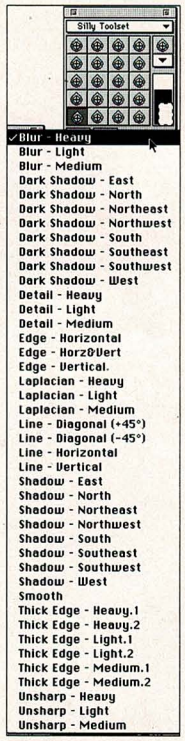


7 The **Reflect** function from the **Image/Flip** menu flips the plane horizontally. This will make the direction of the lighting on the plane more authentic. You must pay attention to little details like this when compositing images if you're to fool the viewer into believing that the final 'tampered' image is genuine.

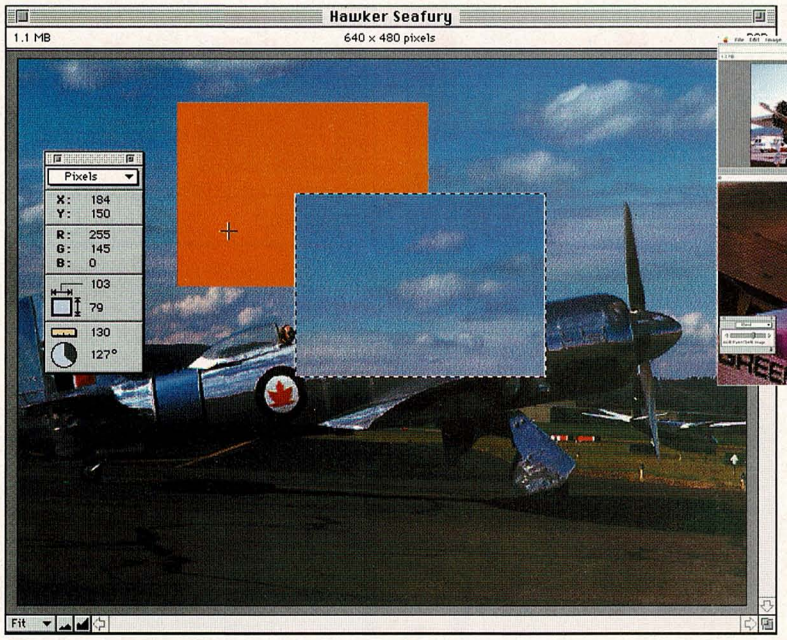


8 Once the plane has been re-scaled and flipped, it has to be copied and pasted into the Alaska picture. Then the plane can be moved to where you want it to appear in the final image. Once the plane is there, copy it and paste the copy onto the image. Now flip the copy through the vertical, so that it appears below the other plane, and upside down.

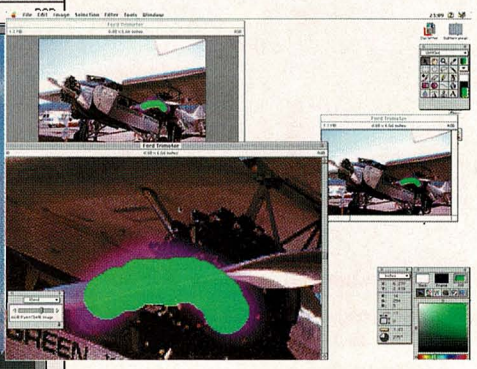
Continued on next page



This may look like a silly toolset (check out its name), but each of these kernel tools applies a different kernel effect.



Color It!'s excellent info panel gives you all the usual details, but in addition it tells you how far and at what angle the cursor position is from where it started. This is superb when you wish to move an item a set number of pixels in a certain direction.



Color It! can open an image in several windows simultaneously and display them all at different magnifications. Changes made to the image are instantly visible in all the windows.

files, even if you use it on a PowerMac 7100/80 – and *Color It! 3.0* is Power-Mac native. It's not exactly slow, and if you're a non-professional user you may not mind the slight delays that most tasks will entail. If you've been used to the speed of *Photoshop*, *Color It!* can't quite keep the pace, but if creators MicroFrontier could crack the speed problem, *Photoshop* would have a very serious, very cheap competitor.

If you need to do the full spectrum of image processing tasks and do them fast (if you're not sure what they are, see our feature starting on page 42), and you are lucky enough to have a big wallet and a big Mac, *Photoshop* is still the only choice. But if you have a more modest machine or budget, *Color It!* is ideal for painting and retouching screen resolution images and applying image processing effects to specific areas of a picture. Don't dismiss it as second-rate just because it come free with *KPT* – that bundle must be one of the best deals around today. **MF**

Color It! is capable of handling the most common file formats as well as StartupScreen, *Photoshop 2.0* and *2.5*, and Photone Prepress. It can also save JPEG picture files by using Apple's QuickTime video software, so you can use all the QuickTime formats (JPEG, Cinepak, Video, Animation etc) to compress your image.

COLOR IT! 3.0.2

Price: $149.95 + $15 p&p from the US, or free with *Kai's Power Tools* for £175.08. Requires: any colour Mac, 2Mb free RAM minimum, 7.5Mb hard disk space, System 6.0.3 or later (must have 32-bit QuickDraw if using System 6), PowerMac native. Contact MicroFrontier in the US on 00 1 515 270 8109, or, for the *KPT* package, Principal in the UK on 01706 832000.

FEATURES 89%
Some unique features and some standard features which are only available as add-ons for other programs.

EASE OF USE 80%
Simple compared to *Photoshop*.

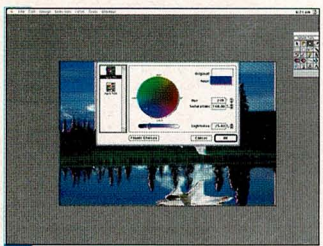
DOCUMENTATION 80%
The manual's very clear, but it doesn't show off *Color It!'s* full potential.

VALUE FOR MONEY 93%
At this price, a straight colour paint package would be good value. With all these image-editing features it's a bargain.

MACFORMAT RATING 88%

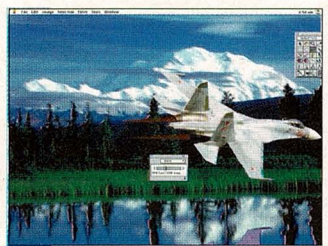
CREATIVE COMPOSITING WITH COLOR IT! 3.0.2

Continued from previous page



9 Now drag the upside-down plane to where you think its reflection should be. Then, using the scale feature (as in step six) but not holding down the **[shift]** key (you want to scale the plane disproportionately), squash the reflection a little vertically to account for parallax. This won't be totally accurate, because the reflection should really be a different view of the plane, but it will suffice.

10 Now you can select a nice darkish blue colour for the background colour (you do this by clicking on the top of the three colour areas at the bottom right of the **Tools** menu), and cut out the plane, leaving a dark blue plane-shape. Then paste the plane back into the cut-out, but use the paint controls to make it almost transparent. This will create a dark-blue reflection of the plane.

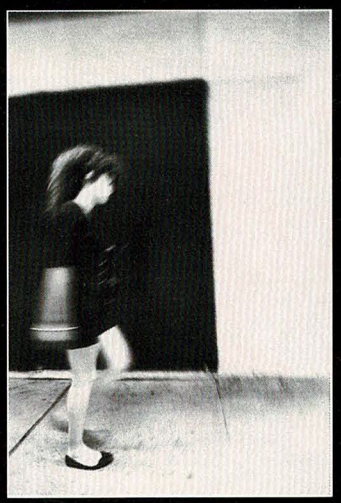


11 With the Lasso tool, create a narrow jetstream-like selection from the back of the jet's afterburners. Feather the selection using the **Feather** option from the **Selection** menu – *Color It!* has multiple undos, so you can experiment. To make a red/orange background colour, set the paint controls to 35% paint, 65% image, delete the selection, and you create a transparent 'afterburner' effect.

12 For finishing touches, you can ripple the plane's reflection and add the afterburners to the reflection too. The identification numbers on the plane are the wrong way round, so you might want to cut out, mirror and distort them. Everything you 'correct' about the picture, no matter how imperceptible it is, will help to subconsciously convince the viewer that the picture is 'authentic'.

Katbox

VOLUME 2



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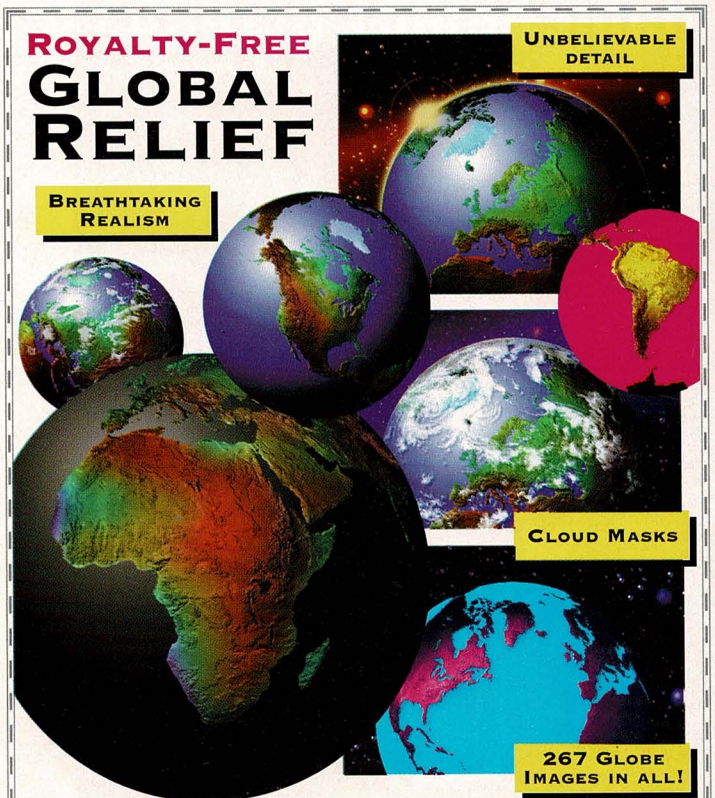

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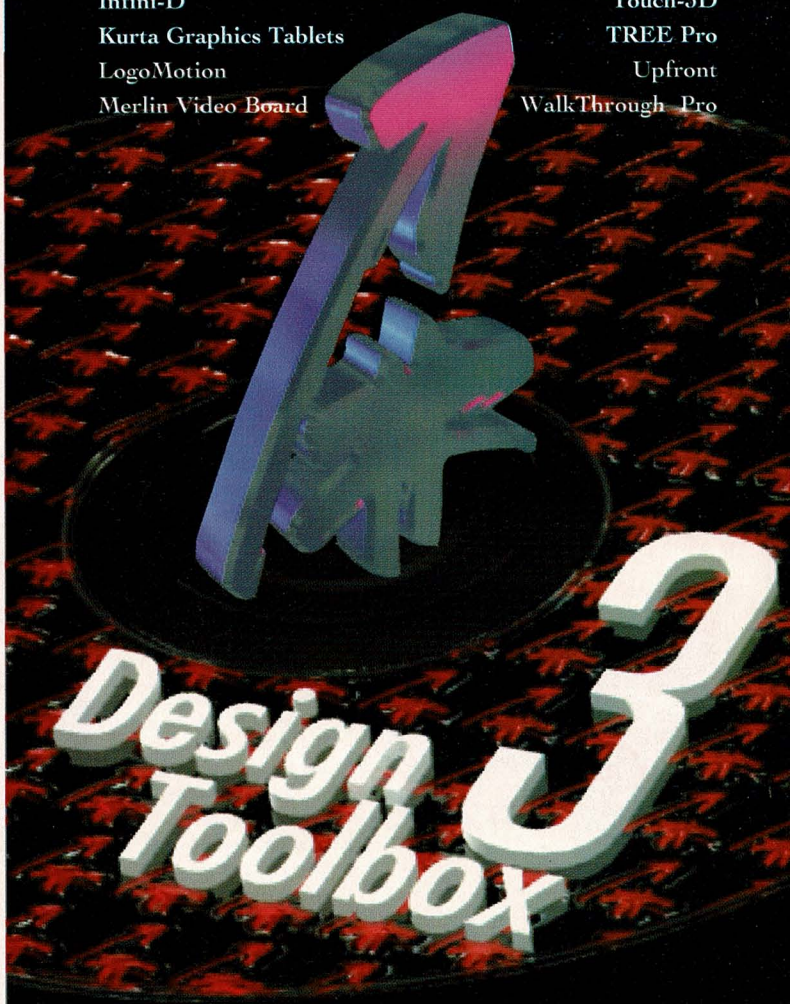

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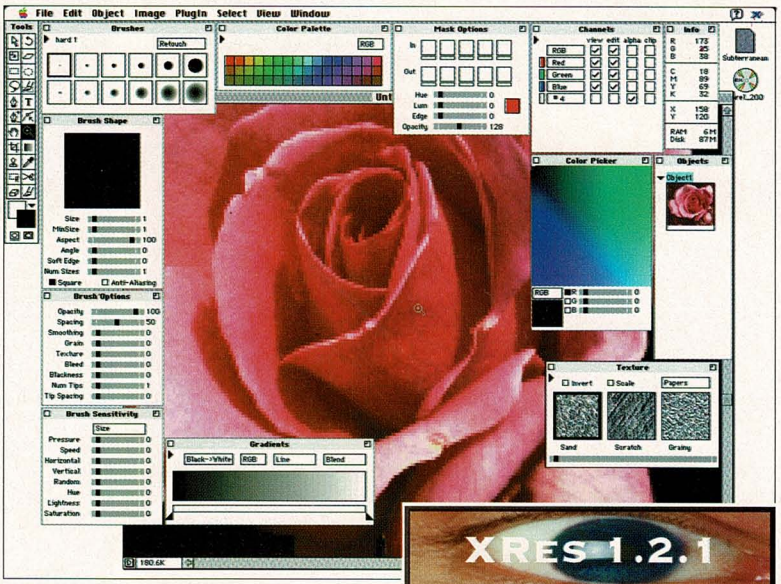
XRes 1.2.1

The pretender to *Photoshop's* throne or what? The graphics software package *XRes* has been updated. We give the new version a critical once-over.



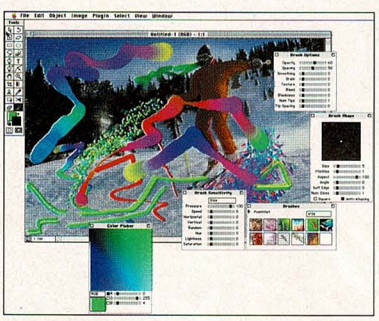
As you can see, *XRes* is not exactly short in the floating palettes department. However, unlike many of today's programs, these palettes offer an extensive range of adjustment when you initially open them, without the need for double-clicking or other 'modified' use.

Recently we looked at a new image editing package called *XRes* (see MACFORMAT 23). *XRes* uses the 'store the changes up, and render them later' style of working, which enables it to display the effects of any image manipulations on screen immediately, and perform operations very quickly. The downside was that *XRes* was then very slow when it came to rendering the changes later, and if there was insufficient disk space to render the changes, this could cause a machine lock up.

Text is a welcome addition to *XRes 1.2.1*, but it still lacks essential features like printing.

Since our review, developers Fauve Software have been working hard on a new version, and *XRes 1.2.1* has just hit the streets. It's a free update for registered users, and it boasts a large number of enhancements.

First, and most importantly, rendering times have been improved, and the amount of disk space required has also been reduced. Now, if there is insufficient disk space, the program warns of this rather than attempting to proceed and then locking up.



The configurability of *XRes'* painting tools is second to none. brushes can be given several tips, and speed sensitivity can be substituted for pressure sensitivity to adjust brush thickness or opacity.

As well as the rendering times, Fauve have also speeded up resizing, rotating and skewing of objects. Additionally they have added numerical and arrow-key control to these operations for much greater accuracy, and a proportional resize option.

XRes 1.2.1 now has text functions, which were absent from earlier versions, and the program can read EPS/DCS and Scitex CT images, two of the most commonly used in the desktop repro world.

XRes has some very interesting features: its brush controls are excellent, as are some of its paint modes, and the fact that objects remain discreet and can be moved, re-sized and deleted separately at any time is extremely impressive. But for all this, *XRes* still suffers from a less than intuitive interface, and lacks the ability to print. While it is undoubtedly a very interesting package, I would still spend my money on *Photoshop*. MARCUS DYSON

XRES 1.2.1

Price: £799. Update free to registered users.
Requires: Mac Quadra (PowerMac recommended), 16Mb of RAM, System 7.0 or later.
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MACFORMAT RATING 78%

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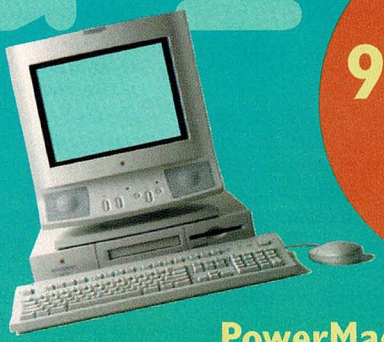

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For more information

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4si

Authorised Reseller

Picture this!

From fluffy little clouds to young kids, clip photos have a picture for your every need. What can they offer you? Mark Nottley and Derek Smith cast a critical eye.

If you need a photo for a newsletter or leaflet, there's no need to become a photo journalist and snap it yourself. There's now a wide range of photos available on CD to suit everyone from the home enthusiast to the art editor on the glossiest of magazines.

Clip photos are big business and with so many images available from so many sources, you'll need to tread carefully to make sure you get the best images. Here we examine ten of the major packages on the market and assess them for price, quality and content. The other important question to be careful of is royalties. Some companies have the limitations of usage in very small print. Therefore, in these reviews we list usage limitations under the following guidelines:

1 = Unlimited usage for any purposes.
2 = Unlimited usage providing that the image is not the main selling point – for instance, a calendar or postcard.
3 = Can only be used for products that will not be sold commercially, so they can be used to create an advert, say, but not used in a book or magazine.

You'll also need to be aware of resolution – that is, how many pixels go to make up the photos. For a low cost newsletter, this probably won't be a consideration, but if you're planning a glossy A4 leaflet, it's something to bear in mind. For this sort of image, magazines use photos at about 250 dpi (dots per inch). Many high quality photos are supplied at the resolution of 2,048 x 3,072, which at 250 dpi means they are almost the size of an A4 page.

Every photo when scanned needs a little attention, such as imperfections being cleaned and colours being adjusted. So we also took a close look to see if the images have been touched up and are ready for immediate use, or whether they are in need of any attention.

Over 75 high-res photos for your use, on this month's CD-ROM!

Different CDs use different file formats for their images, with TIFF and PhotoCD being the most popular (see the File Formats box for more details). While most graphics applications can handle TIFF, PhotoCD is more specialised, so check your program's manual to see if you can use this format.

We look at the following collections of clip photos in order of industry importance, dealing with the most significant players up-front.

KPT Power Photos

The KPT brand name is quickly receiving recognition for providing high quality, interesting and fun graphics programs. This collection is no exception. Called KPT Power Photos, it consists of ten CDs providing 500 photos of the following topics: Natural Backgrounds and Textures, Food, Urban Textures and Backgrounds, Sky, Water and Landscapes, and finally, Sport and Recreation.

The image quality is high, as the photos have been cleaned and colour corrected, although the focus on some is a little soft. An interesting feature is the inclusion of masks for a few of the photos that have a single main image. This means that if it is opened in *Photoshop*, you can immediately discard the background and just select the main object. Unfortunately this is only done for a few photos where this was easy to achieve, meaning that it only saves you the matter of a minute or so. If this principle was extended to many more of the photos, so that, say, a building against a cloudy sky had a mask, it would make this feature crucial. Let's hope this is starting a trend that will be taken further with future CDs.

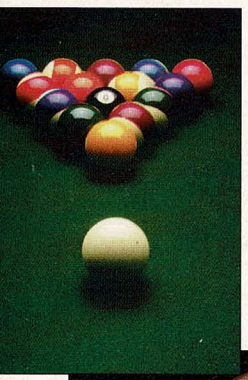
The strongest point of this collection is the choice of shots. Rather than a bunch a similar looking photos, they are varied and imaginative, which makes the collection very good value for money.

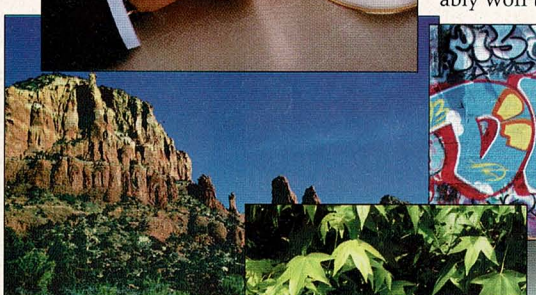
One criticism of all the photos is the presence of a black border of around 20 pixels wide. This is indicative of PhotoCD, so although these photos are saved as TIFFs, it's probable that they started out in life as PhotoCD format. It does raise the question of why the photos weren't cropped to lose it? The same annoying border turned up on all the PhotoCD discs.

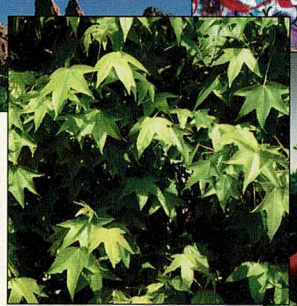
There is a browser included on a separate CD to help you find a desired photo, but it's not very friendly, and by the time you have loaded it up, entered your search criteria, and located the desired photo, you may as well look through the booklet. This contains thumbnails of all the images and, although they're somewhat on the small side, it's perfectly useable.

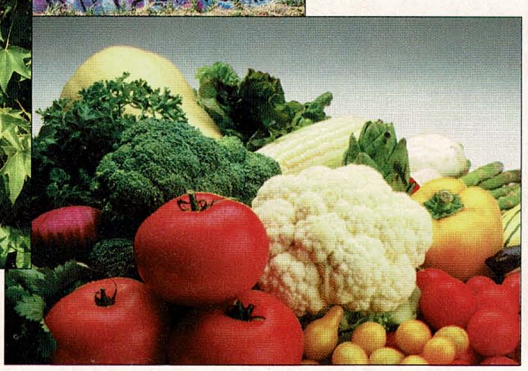
Altogether, this is a rich collection of high quality photos which show good

CHANNELS
Some of the KPT Power Photos come with an extra channel. This bitmap layer can be used in *Photoshop* to quickly remove the background from the main object.









The KPT Power Photos collection is full of high quality and varied images, ranging from Urban Textures to Sport and Recreation.

GRAPHIC FILE FORMATS EXPLAINED

Picture files can be saved in a number of formats, but not all are created equal, and not all graphics programs can open all formats...

PICT
A general graphics format capable of storing both paint and draw items. If two objects are grouped together in one program, and the file opened in another, you can still ungroup the objects and edit them. However, the format is less sophisticated than EPS in that it can lose very fine detail. Because the format is so common, most programs can open PICTs. The original format, PICT1, was black and white only, but all PICTs that you will come across now are PICT2, which is colour compatible.

TIFF
Tagged Image File Format is a bitmap format often used for scans. It contains colour information for every pixel in the file, and therefore, a high resolution scan in millions of colours can be really very large. Almost all applications accept TIFF format, although some programs use their own compression techniques, which may cause incompatibility between some programs.

JPEG
It was the Joint Photographic Experts Group that developed this compression format for scanned photos. The purpose of this format is to make scans dramatically smaller by using compression techniques, and by losing some of the colour information. This obviously degrades the quality of the picture, but the theory is that the human eye won't notice. Compression ratios of 20:1 can be achieved.

PhotoCD
Introduced in 1992, the Kodak PhotoCD system streamlines the process of getting high resolution images from photographic film onto CD. It requires a compatible CD-ROM drive, but almost all current drives are. PhotoCDs can also be used in machines like the Philips CDi, meaning they can then be viewed on a TV screen.

You will need a program capable of reading this format, such as *Photoshop*. A single PhotoCD file can contain several resolutions, although these are of a fixed size. PhotoCD files are not compressed in any way.

Anyone can take a 35mm roll of film to a photo developers and have their pictures put onto CD. Because they are multi-session, you can add more pictures to a CD at a later date, until a total of about 100 images is reached.

value for money, and would be a good mini library for any user, from the amateur to the professional.

KPT POWER PHOTOS

Format: TIFF
Max resolution: 2,048 x 3,078
Usage: Category 2
Price: £175 for all five volumes.
Contact: Principal on 01706 832000

MACFORMAT RATING 89%

COREL

Corel boast that they have the largest clip photo library in the world, and with 400 CDs, only collections such as PhotoLib come close. What's surprising is the price. A single CD containing 100 photos is just £23.50, a themed collection of 25 is £175, or a complete library of 200 CDs is £935, which works out at less than a fiver each!

So what's the catch? Resolution is high at 2,048 x 3,072 and the image quality is good with few blemishes or scratches. The colours tend to be a little washed out, but two minutes work in *Photoshop* can sort that out. You get an electronic browser and a printed manual to help you find that vital image, both of which are perfectly adequate.

The catch is the content of some of the CDs. We reviewed the Photo Library 2, their second collection of 200 CDs. While many CDs are varied and interesting, you have to pause and wonder at the need for an entire CD of San Francisco doors. Apart from the question of why anyone needs 100 photos of doors, you also left wondering the full significance of the fact that they are all from San Francisco.

Few of the photos are individually stunning, and most have the feeling that they weren't quite good enough to get into a more expensive collection. However, these CDs undoubtedly offer great value for anyone wanting clip photos, and are perfect for compositing, where images are combined or used as backgrounds.

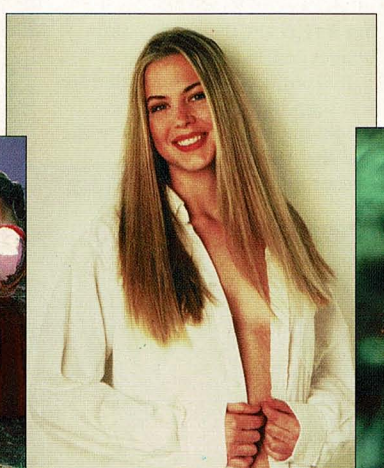
COREL

Format: JPEG TIFF
Max resolution: 2,048 x 3,072
Usage: Category 2
Price: £23.50 each CD, set of 25 for £175, set of 200 for £935
Contact: Corel 01703 814142 or Magnum Software on 01884 820240

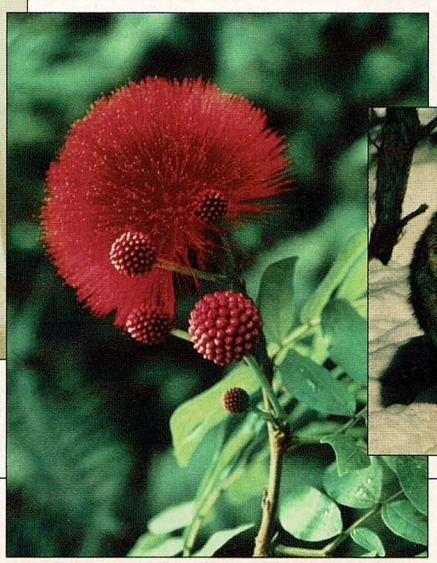
MACFORMAT RATING 87%

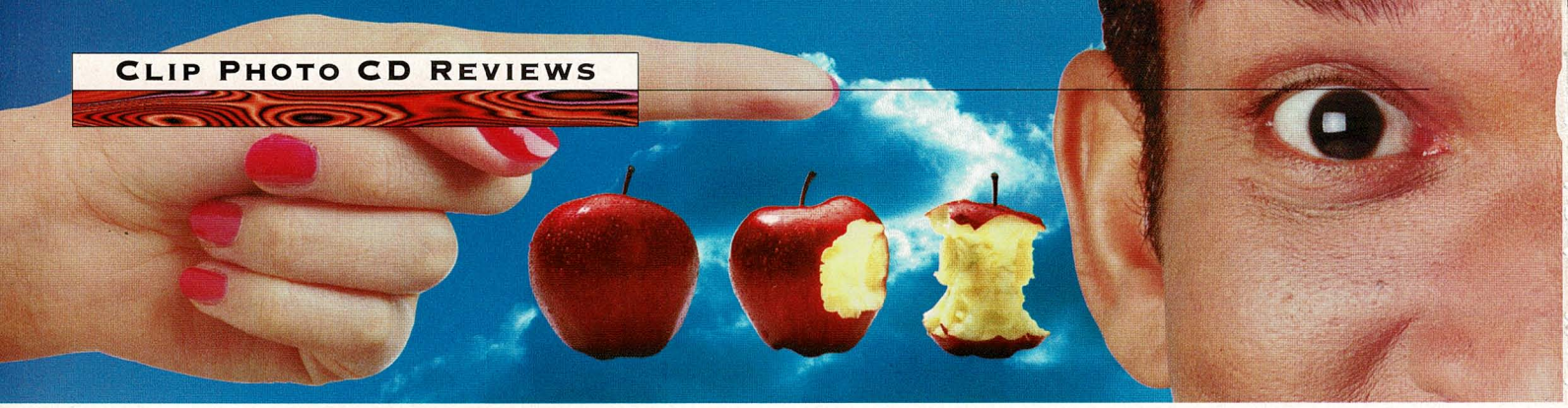
CLIPPING PATH
The PhotoDisc Signature range come with high quality clipping paths. With *Photoshop*, these make it easy to save out an EPS of an object as a cut-out – more flexible than the channels in Power Photos, and a very handy time-saver.

Continued on next page



There is certainly no shortage of choice with Corel, who can offer a clip photo collection of 200 CDs, each containing 100 photographs.

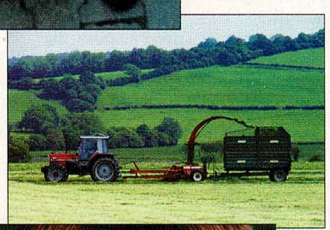




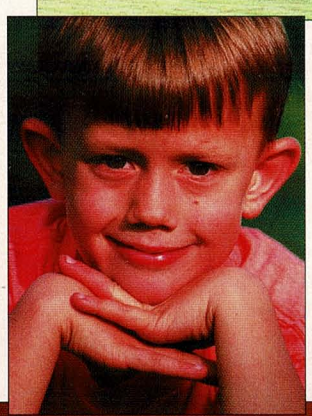
PHOTODISC

PhotoDisc currently produce over 20 individual clip photo CDs on subjects as varied as children, Italian fine art, business, people and sports. The CDs vary from the Signature series with 100 photos at the highest resolution we came across of 2,565 x 3,885, to the regular series, most of which have 336 photos, at 1,536 x 2,295 pixels.

For the purposes of this review we looked at three CDs from across the range. Instead of using PhotoCD format, all the pictures are TIFFs, and are compressed with JPEG to fit them all on (and you don't get the PhotoCD black border). PhotoDisc claim, with some justification, that their method of using a drum scanner (high end alternative to flat bed scanners) produces better results than PhotoCD. Close inspection bears this claim out, with crisp images, and the quality would be noticed if the photos were used at large sizes. The photos also appear to have been well colour corrected and cleaned, so they can be used with a minimum of fuss.



Looking at the images, they beat the competition, such as Corel, in two respects. First, the subject matter of the photos tends to be more varied and interesting, and second, they are taken by top photographers who can capture scenes with life.



This doesn't come as a surprise considering that PhotoDisc aim at the professional market, with a price tag to match. A single PhotoDisc CD costs considerably more than a 25 pack of Corel CDs. You pay a huge premium for that extra quality.

The usage rights are limited in that photos cannot be used in products that will be sold. However, this seems somewhat vague as PhotoDisc said they could be used in a magazine, but not a book. Best check whether you can use them for your purpose before you buy.

The best way of sampling PhotoDisc is to buy their starter pack. The CD includes over 7,500 thumbnail images from their entire range, as well as 25 high res images for immediate use, and the cost is a more reasonable £46.

PHOTODISC

Format: JPEG TIFF
Max resolution: 2,565 x 3,885
Usage: Category 3
Price: from £175 to £292.50 each
Contact: PhotoDisc on 0800 697 622

MACFORMAT RATING 80%

PHOTOLIB

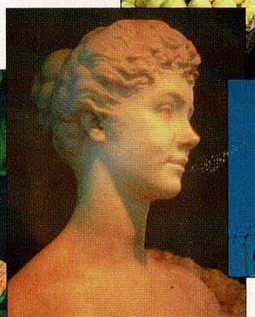
With 36,000 photos spread across 200 CDs, PhotoLib is another big player, combining the scope of Corel with the prices of PhotoDisc. Their CDs, however, can vary quite a lot in number of images and price, but a typical CD contains 400 images at £351.

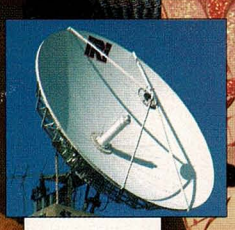
Resolution of images is slightly less than the typical 3,072 x 2,048, but this may be due to the fact that the black border found on so many other collections has been removed, which saves you a job. On the down side, this was the only product in the roundup that didn't have a printed booklet showing all the images. There is an electronic browser on the CD, which most of the other CD collections have, but a printed booklet is still more intuitive to use.

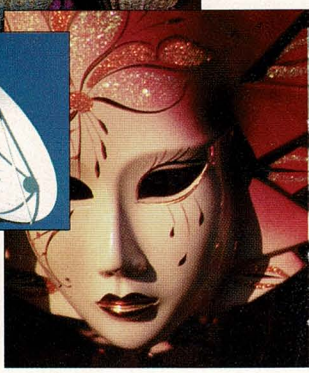
To get 400 JPEG images on a CD, PhotoLib uses a high compression ratio. This makes files smaller by removing some of the colour information. Although this theoretically loses quality, it is difficult for the human eye to detect and the photos appeared crisp, though there were a few blemishes and scratches.

The high price per CD is balanced by the number of photos and their above average quality, but if you want to try before you buy, a good option is the CD PhotosDirect disc at just £46. This gives you a browser database of all 36,000 images from the PhotoLib range, helping you decide which CDs to buy, and includes 100 high resolution images. PhotoLib also have an on-line service similar to Hulton Deutsch (see 'I want it now!' boxout). If you just want a single image, you can order it on-line and have the image sent to you via an ISDN line or a 28,800 baud modem.

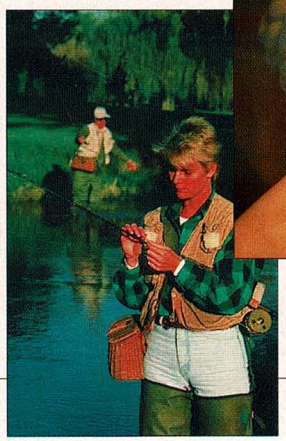
PhotoLib also produce four CDs, each containing 4,000 images at 720 x 485 pixels, at £351 each. Ideal if you need to reproduce at small size, or if you

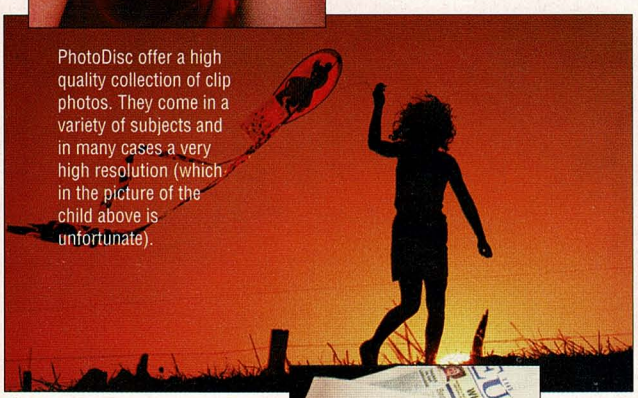






There are 36,000 images to choose from in the PhotoLib range. The high price per CD is justified by the large number of images to be found on each one.





PhotoDisc offer a high quality collection of clip photos. They come in a variety of subjects and in many cases a very high resolution (which in the picture of the child above is unfortunate).

I WANT IT NOW!

Clip photo CDs have established themselves as useful resources over the last five years, but you are always limited by what's on them. If you are after a specific shot, say of a real-life person, then they're no good.

Traditionally, to get photos, you contacted a photo library who charged you a fee to find suitable photos which they then courier out. You'd pick one, which you then courier to a bureau to scan for you. A very expensive and inefficient system. But the colossus of technology continues to march and things are changing.

Hulton Deutsch are one of the largest photo libraries in the world, with 15 million photos. For high flyers with a sight ISDN telephone line (a super fast digital line) you will soon be able to browse Hulton Deutsch's library on-line, then request any photo, at any resolution. A trial system is already up and running, although only a small percentage of their collection is accessible.

There's no charge for this service – payment comes in the form of royalty charges, and these can work out quite expensive. However, this system is aimed at the professional publisher, and newspapers will love the immediacy of it. For more details contact Hulton Deutsch on 0171 266 2660.

want photos to use on screen for multimedia presentations.

PHOTOLIB

Format: JPEG
Max resolution: 2,920 x 1,940
Usage: Category 2
Price: most £351
Contact: Kagema in Germany on 00 49 7745 91100 (fax 91101)

MACFORMAT RATING 80%

DÍAMAR

DÍAMAR currently produce 12 titles, including Backgrounds & Textures, Cities & Castles, Landscapes & Scenery, Flowers, Nature & Animals, and People & Lifestyles.

Each CD contains just 54 photos, although they come in a variety of formats. Unfortunately, the PICT format images are in 256 colours, and the TIFF files only go as high as 1,536 x 1,024. For the full resolution, you'll need to use the PhotoCD files.

The photos tend to be of interesting subjects, avoiding repetitive dross. Too many have a significant amount of dirt on them. This is caused by dust and hairs on the original film and should have been edited out after scanning, as PhotoDisc did with theirs.

Image quality is variable, with some images having areas of unconvincing colour, while others have impressively good colour balance. For the price, they are reasonable value but would have trouble competing with Corel CDs, which offer twice the number of images at half the price.

DÍAMAR

Format: TIFF and PhotoCD
Max resolution: 3,072 x 2,048
Usage: Category 2
Price: £52.82 (inc postage)
Contact: MacZone on 0800 393 696 or DÍAMAR on 00 1 206 340 5975

MACFORMAT RATING 75%

Although the number of images available from DÍAMAR is limited, on the whole they are of varied and interesting subjects.

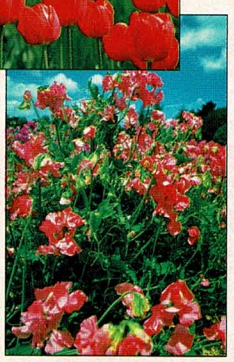
ANDROMEDA INTERACTIVE

Andromeda Interactive produce just three PhotoCD collections, entitled Flowering Plants, Classic Cars and Beautiful Landscapes. There is an electronic browser on the CDs, and although it tended to crash my PowerMac, I would use the printed thumbnails that come printed in the CD insert anyway.

At £20 a go, they offer good value as the image quality is reasonable, with 100 high resolution images on each CD. However, a few images had large dirt marks and the quality of the photography was disappointing. Some of the classic cars were shot on a gravel path. Pity they couldn't be bothered to remove the chippings from the types!

At this price they are well worth a look, especially the classic car CD, which is a bit out of the ordinary (although it lacks an MGB Roadster).

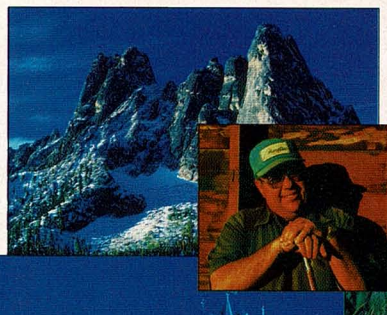
Andromeda Interactive combine good value for money with reasonable image quality.

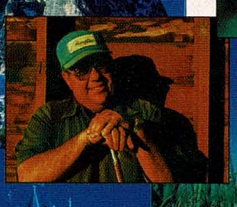


ANDROMEDA INTERACTIVE

Format: PhotoCD
Max resolution: 3,072 x 2,048
Usage: Category 1
Price: £19.99
Contact: Andromeda Interactive on 01235 529595

MACFORMAT RATING 80%





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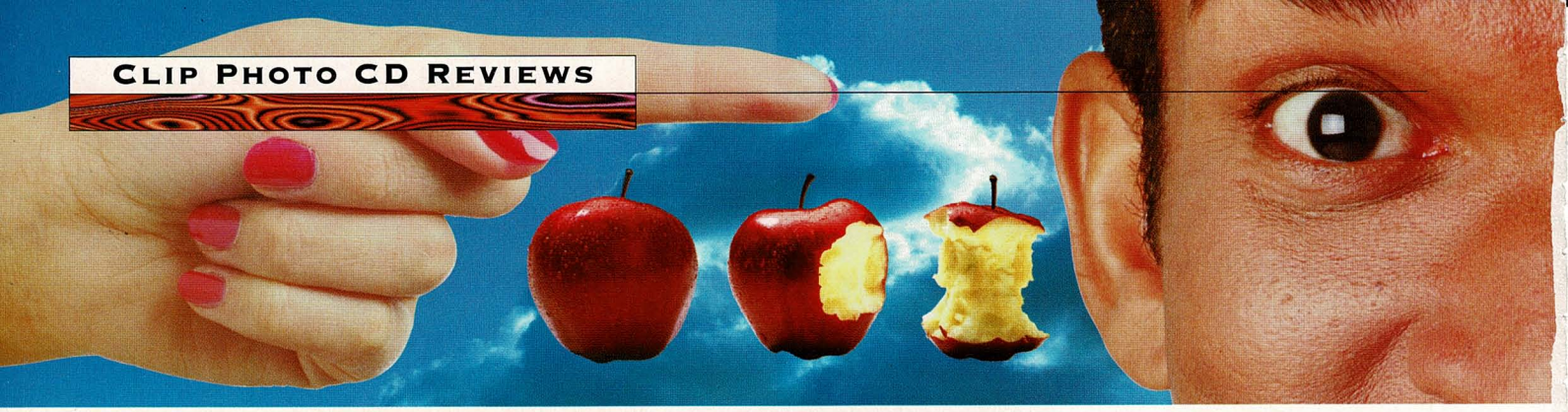


MDI Image Warehouse is a diverse collection, offering original drawings as well as photographs.

MDI IMAGE WAREHOUSE

Image Warehouse is very different from other CDs featured here, mainly because, instead of simply featuring photos, it includes a lot of art. This includes original drawings, 3D rendered objects, composites and just images with *Photoshop* filters applied to them.

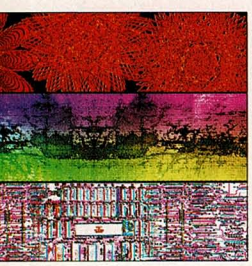
The CD also includes backgrounds and textures, as well as some rather good photos, including a particularly fetching study of the author's cat, Twiglet. In total there are 360 images across the range, which doesn't really provide a complete resource unless you have very undemanding needs. What it does give you are images that you won't find anywhere else, and the inspiration to create attractive artwork.

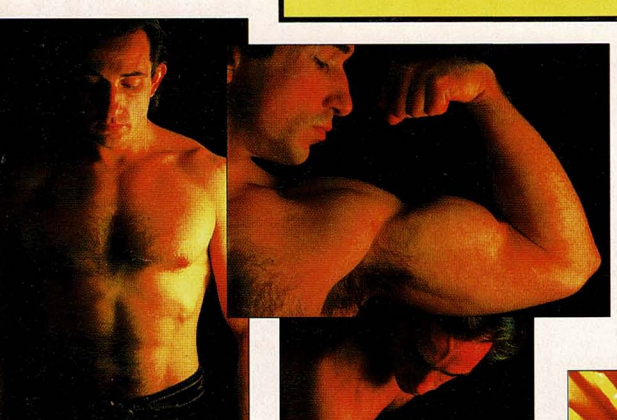
The only criticism is that the images are not of the highest resolution, rarely getting above 1,024 x 768. This isn't too much of a problem though as they aren't intended for A4 usage, but smaller illustrations. We can thoroughly recommend this to anyone looking for something a little different to liven up their work.

MDI IMAGE WAREHOUSE

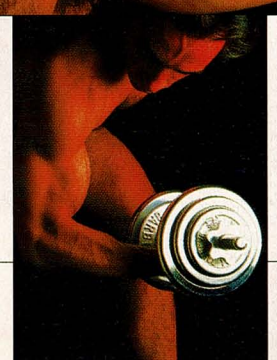
Format: TIFF
Max resolution: 1,359 x 882
Usage: Category 1
Price: £39.99
Contact: MDI on 01252 737630

MACFORMAT RATING **88%**





Photostetestics provide a CD full of images of a bloke called Michele flexing his muscles!



PHOTOSTECTICS

Strength is the first PhotoCD from the Canadian company Photostectics and is noteworthy because of its unusual theme. It contains 75 high resolution images of a hunking model flexing his muscles and generally looking macho. Just to cheer up any male who's feeling a little inadequate, the accompanying thumbnail booklet tells us that his name is Michele (snigger).

The shots are obviously taken by a good photographer and have a distinctive quality feel. All the photos are taken against a black background which is supposed to help you cut the model out. Unfortunately, many shots have heavy shadows across the body, which makes them look artistic, but also makes them far harder to cut out. This CD is desperately crying out for ready prepared masks.

For anyone who needs shots of rippling muscles, they should buy this CD, and console themselves that although expensive, it's high quality.

PHOTOSTECTICS

Format: PhotoCD
Max resolution: 2,048 x 3,072
Usage: Category 1
Price: $255 inc postage
Contact: Photostectics on 00 1 416 968 1818, fax 00 1 416 925 7887, e-mail photos@interlog.com

MACFORMAT RATING **79%**

QUADRA

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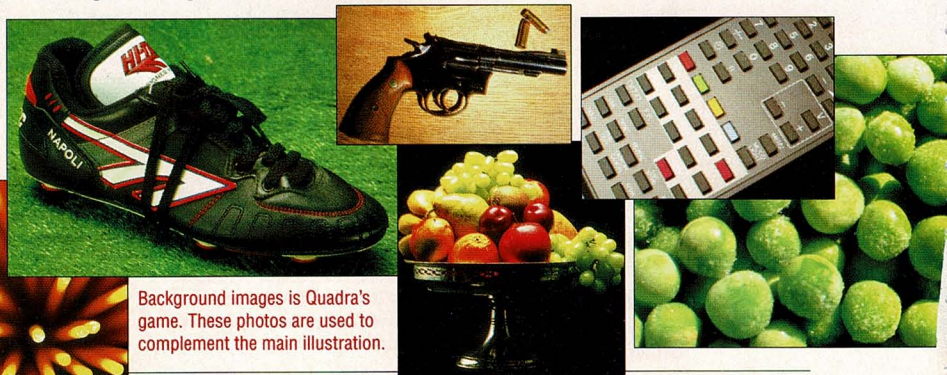

Background images is Quadra's game. These photos are used to complement the main illustration.

BIG RED HAT

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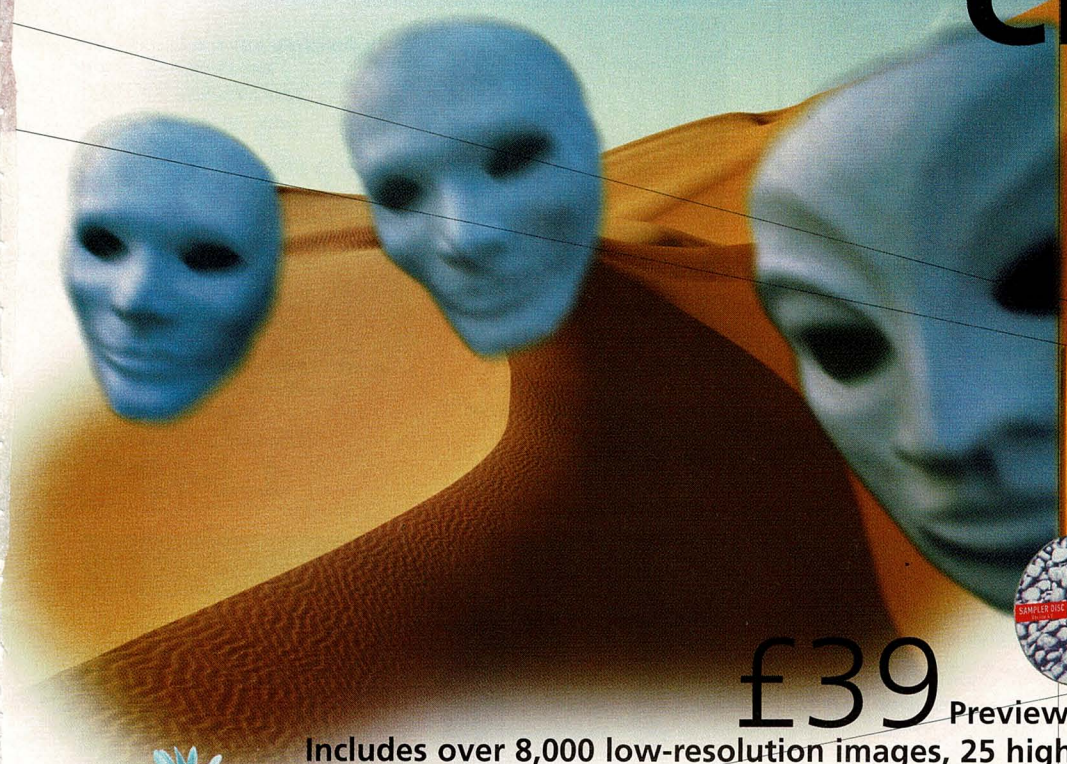

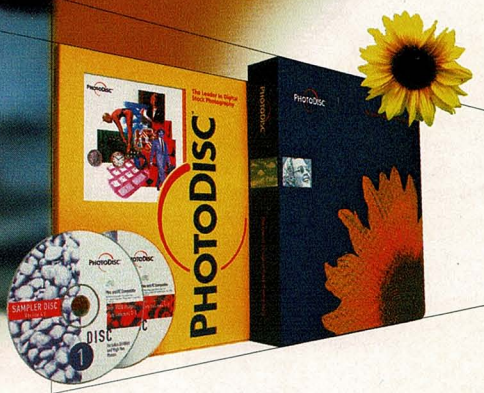

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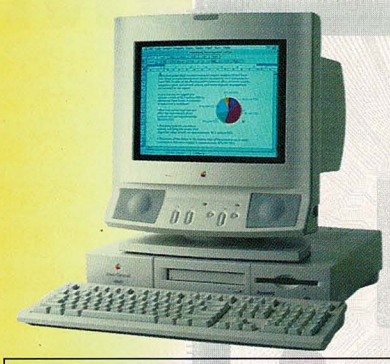

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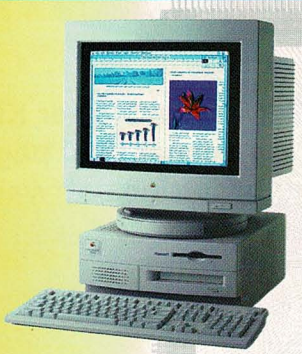

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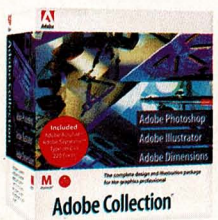

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Return of the X files

What secrets lurk within a System Folder? Martin Jones delves even deeper into the mysterious world of the 'X-files', known to some as Extensions and Control Panels.

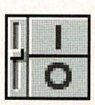
Last month we took an overview of the items you regularly find in the System Folder. This month we look at what individual Extensions and Control Panels actually do, and whether you need them at all.

Many Extensions, and some Control Panels, use up precious memory (RAM), and occupy equally precious hard disk space. Using this guide, you will be in a much better position to decide whether to temporarily disable, or even delete, unnecessary Extensions. This will have the double benefit of freeing up some RAM and making your Mac run slightly faster.

The Control Panels and Extensions shown here are to be found in System 7.5.1, and many of them can also be found in earlier versions of System 7.

Control Panels

Apple Menu Options
Apple has added a hierarchical **Apple** menu to System 7.5. Now you can organize your **Apple** menu by putting related items in folders that are easily accessible via pop-up submenus. However, if you don't find this useful, you can remove it.



Auto Power On/Off
Some Macs that can be turned on with the power button on the keyboard (soft power-on) can now be instructed to turn themselves on and off at specified times.

AutoRemounter
This Control Panel's function is to automatically remount network servers when your PowerBook is reconnected to the network. Therefore, AutoRemounter is only required for PowerBooks that regularly connect to a network. Otherwise, it can be deleted.

Brightness
Controls the screen brightness on computers that support software control of this feature such as the Macintosh Classic. Otherwise not needed.

Cache Switch
The 68040 processor uses a speed-enhancement technique called caching. This enables you turn off the processor cache if you are using an application that is incompatible with this feature. Only needed for Macs with a 68040 processor (in the UK, that means Quadra and Centris models).

CloseView
Included as an aid to visually impaired users who need to have their screen image magnified. It provides adjustments for this magnification up to 16 times from the normal screen image.

Colour
Enables you to customise the colour of text selections and window highlights.

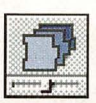
ColourSync System Profile
Helps ensure that monitor, scanner and printer colours match by using hardware profiles supplied by peripheral manufacturers. This software is required for QuickDraw GX to function.

Control Strip
Now a standard for all PowerBooks, this handy control bar gives your desktop Mac quick and easy access to file sharing, sleep mode, sound volume and other System settings. It can be removed if you don't find it useful.

Date & Time
Provides controls for setting the System clock as well as the format for display of date and time. In System 7.5 it also puts a clock in the menu bar and provides Time Zone selection for PowerTalk and other communications.

Desktop Patterns
Striking out on its own for the first time in System 7.5, it enables you to now use your favourite pictures and graphics to create your Desktop pattern. Just copy and paste. It is really an application rather than a Control Panel, but might as well be left in the Control Panels folder.

Easy Access
Mouse Keys enables you to control mouse movement from the numeric keypad, Slow Keys requires keys to be held down for a specified time before executing a keystroke, and Sticky Keys enables control sequences like **[option] [shift] 8** to be used without having to hold multiple keys at once. These features are popular with physically disabled users who may have difficulty using the mouse or keyboard. In 7.5, settings are saved through restarts and shut downs.



Extensions Manager
Enables you to save sets of Extensions and Control Panels so you can load only the ones you want for a particular work session. Every Extension loaded takes up RAM, so this makes your memory usage more efficient. Plus, conflicts between Extensions are a common cause of problems (see the 'Turn me on' box), so this can help simplify the troubleshooting process too.

File Sharing Monitor
This shows you what items on your Mac are being shared (see Sharing Setup Control Panel) and who is currently logged on to your Mac. It can also enable you to disconnect individual users. Therefore, File Sharing Monitor is only useful for people on a network.

General Controls (System 7.1)
Provides control over the Desktop pattern, the System clock, the rate at which the cursor blinks when in a text-entry area and how many times a menu item blinks after you select it.

General Controls 24K (System 7.5)
This Control Panel was redesigned for System 7.5, and now adds control over Finder hiding (the Finder disappears when you're in another application), the Launcher, and protection of the System Folder and the Applications folder that will prevent contents from being deleted. It also controls the default location for saving new documents, and gives you a new alert dialogue that appears during startup if your Mac wasn't shut down properly.

WHO'S HE?

Martin Jones works in technical support in the US and has an extensive knowledge of the Mac.

DISABLING

If you discover folders appearing in your System Folder with the word 'disabled' in brackets, don't worry, these are created by Extensions Manager.

SERIAL TOOL

This provides communications programs that use the Communications Toolbox with the ability to make and configure connections via a serial cable. It is not an Apple Extension, but is installed by many communications programs.

Continued on next page

SHARED CODE MANAGER

This is installed with some Microsoft products and is not an Apple Extension.

SPACE OUT

To make an Extension or Control Panel load first, put a **[space]** before its name.

IN PLACE

It's important to make sure that anything in your System folder is in the correct place, but how do you know where files should go? The answer is that you don't need to know. In any version of System 7, simply drag a file onto the closed System Folder, and it will automatically be put in the right location.

Keyboard
This Control Panel enables you to set three different keyboard-related settings. Key Repeat Rate controls how quickly a character is repeated when a key is held down without releasing it. Delay Until Repeat determines how long you can hold a key down before it begins repeating the character. Keyboard Layout enables you to switch between different keyboard styles whose characters may be arranged for other languages. System 7.1 includes only the English keyboard layouts.

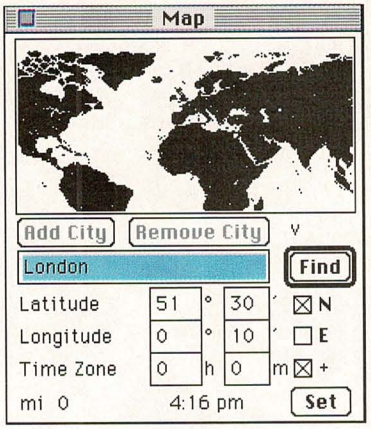
Labels
The labels feature of System 7 lets you mark files so that they can be sorted or identified by category and colour coding. This Control Panel enables you to customise the category names and the icon colours associated with each category.

From a golden orange to a muddy brown, if used correctly, the colour coding of files can be useful facility.

Launcher
This nifty little Control Panel gives you a central location for opening all your frequently used applications and documents at the click of a button. The Launcher will work from anywhere on the hard disk. However, removing it from the Control Panels folder also removes the Launcher option from the General Controls panel.

Macintosh Easy Open
The old '...application is busy or missing' dialogue has been replaced with Macintosh Easy Open, a new system that will look for applications that may be able to open the document you've selected and then present you with a list to choose from.

MacTCP
This Control Panel is used to manage connections to UNIX systems and the Internet, so if you are not planning on being connected to either, you don't need it.



The Map Control Panel is ideal for locating major cities, but don't expect any help getting around the one-way system in Swindon.

Map
This is a small world map that can be used to determine differences in time zones. Example: Type **London** into the Find box and click **Find**, then click **Set** to indicate London as the starting location. Next type **Dallas** into the Find box and click **Find**. You'll see that it now displays what time it is in Dallas, Texas, the distance in miles from London to Dallas, and the time zone difference. Great fun, but not at all necessary.

Memory
Depending on your Mac, this will give different options to control RAM Cache, Virtual Memory and RAM Disk. We will deal with these in more detail at a later date, but don't delete this Control Panel.

Monitors
This is also where you set how many colours are displayed on your screen, and clicking on Options may enable you to change resolutions, depending on your monitor. If you have more than one monitor attached to your Mac, this enables you to show the Mac how the monitors are positioned in relation to each other so the two screens will behave as one unified Desktop (you need a powerful enough Mac to do this – see our monitor reviews in MACFORMAT 26). In System 7.5, you no longer have to restart the Macintosh after making changes to your monitor configuration.

Mouse
Mouse Tracking enables you to set how fast the pointer moves across your screen when the mouse is moved. Double-click Speed sets how close together two mouse clicks must be to still be considered a double-click. Set this further apart on slower machines.

Network
Macs can be connected to other computers by many different methods. This Control Panel enables you tell the system which method you are using. All Macs have an option for LocalTalk built-in. Others may have additional options (such as EtherTalk or TokenTalk) based on the type of network software and hardware installed (see our networks feature in MACFORMAT 24). Only needed on networked Macs.

Numbers
This Control Panel enables you to set number and currency symbols and formats.

PC Exchange
A disk-mounting utility that will display MS-DOS and Pro-DOS formatted floppy disks, SCSI hard drives and removable media devices on the Desktop, just as if they were Macintosh disks. PC Exchange is not a document format translator, and will not enable you to run PC software. If you never use PC disks, you don't need it.

PC Setup
Found only on Macs with the DOS compatibility card installed. Used to configure hard drives, communications ports, RAM, monitors, file sharing and sound for use with MS-DOS as well as switching between DOS and Mac.

Power Macintosh Card
The On/Off switch for the Power Macintosh Upgrade Card. Therefore, this Control Panel can be removed if your Macintosh does not have a Power Macintosh Upgrade Card.

PowerBook
Found only on PowerBooks, which have many features that save battery power. This Control Panel enables you to control precisely the various settings so you can find a good balance between battery savings and performance.

TURN ME ON

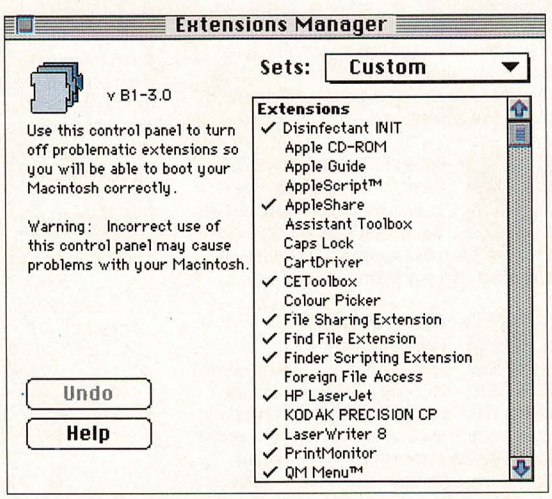
One of the best things System 7.5 gives us is the Extensions Manager Control Panel. This enables you to temporarily turn off or on any Extension or Control Panel, with a minimum of fuss. You can also save particular setups of Extensions.

So why would you want to do this? Well, some Extensions clash with each other, causing your Mac to crash. If you disable one or the other, your Mac will continue to work fine. Some programs may also have trouble with some Extensions, or you may just want to temporarily turn off any Extensions you don't need, in order to save RAM.

To use Extensions Manager, simply open the Control Panel. You'll see a list of all your Extensions and Control Panels, each with a tick next to it, indicating they are turned on. From the pop-up menu in the top right corner, you can also select to run just Apple's own System 7.5 Extensions, automatically turning off any shareware or other Extensions.

Alternatively, you can create your own personalised sets by selecting Custom, choosing your Extensions, then saving the set. For instance, you may want to create a personalised set with all your Extensions, except QuickTime and anything to do with the CD drive, for when you know you won't need those features. Whenever you change the settings in the Control Panel, you need to restart your Mac for them to take effect.

You can bring up the Manager at startup, by holding down the [space bar]. This is a very handy Control Panel that is well worth a little time investigating – you may find it a great help.



The Extensions Manager is a useful Control Panel which makes it easy to temporarily turn off Extensions when you don't need them.

PowerBook Display
Controls the video mirroring feature of some PowerBooks. Only needed where this feature is needed for PowerBooks that support external video. Otherwise, can be deleted.

PowerBook Setup
Some PowerBooks can be used as a SCSI hard disk on another Macintosh. This Control Panel is used to set the SCSI ID number to prevent the PowerBook from conflicting with other SCSI devices. It also enables you to specify a time for your PowerBook to wake from its sleep mode. Some earlier model PowerBooks do not have these features.

Serial Switch
Used to resolve certain control conflicts on old Macs that have only one serial port. If your Mac has both a printer port and modem port, you don't need it.

Sharing Setup
If your Macintosh is connected to other Macs, you can share files and programs between them. Network Identity determines who has the highest level of access to the computer, the password that gives them access and the name of the Macintosh as it will appear to other computers on your network. The File Sharing button is where you turn File Sharing on and off. Program Linking allows applications on different computers to talk to each other. Only useful for networked Macs.

Sound
When your Mac needs your attention, it beeps with an alert sound. This Control Panel is used to choose which alert sound is used as well as its volume. Also controlled are the source and settings for recording sounds, devices for playing back sounds and volume levels for sounds other than the alert sound such as game and multimedia audio.

Startup Disk
You can instruct your Macintosh to start up from a specific SCSI hard drive instead of having it work its way up the SCSI chain. This Control Panel enables you specify the startup drive by clicking on its icon. Startup Disk is of little use if you don't have external hard drives.

Text
Provides text behaviour controls for use with non-Roman text entry. For example, with the proper software, it would enable you to switch to Hebrew, which types from right to left. (See also WorldScript Extension.) Most users will not need it.

Token Ring
This is used to configure a connection to a type of network called Token Ring, developed by IBM. Very few people need this.

Trackpad
The tracking and sensitivity of the Trackpad on Apple's new 500-series PowerBooks are controlled here. Only needed on those machines.

Users & Groups
Since File Sharing enables other people to access files on your hard disk, you'll probably want to control who is allowed to connect and who is not. This is where you tell the Macintosh who is authorised to get in. You can also create groups of people who have common privileges. Only needed on networked Macs.

Views
Controls many aspects of the way the Desktop looks and behaves. Don't delete.

WindowShade
Get windows out of your way in System 7.5, without actually closing them. Just double-click in the title bar and the window will roll up, leaving only the title bar to see. Double-click again and it rolls back down. You can even set it to make a cute little swish sound.

Extensions

040 VM Update
This Extension corrects a problem that could cause a crash when a 68040 based Macintosh has Virtual Memory *and* processor caching (Cache Switch) on. Otherwise, you don't need it.

32-bit System Enabler
This is not the same type of System Enabler described last month. Only the name is similar. This file enables the Mac II, IIx, IIcx and SE/30 to support 32-bit addressing under System 7.1, thus allowing them to use more than 8Mb of RAM. Only needed on those Macs.

630 SCSI Update
This Extension corrects problems on 630 Macs that may lead to a crash when performing large data transfers to external drives. If you are running SCSI Manager 4.3.1, the 630 SCSI Update is no longer necessary.

A/ROSE
Certain types of expansion cards (primarily Apple's EtherNet NB, Serial NB, Coax/TwinAx NB and TokenTalk cards) have their own processor. This Extension provides the necessary software to support them. If you do not have one of these cards, and most people don't, you can safely remove it.

About Apple Guide
General information about the Apple Guide system. Not essential, but to use it, it must stay in the Extensions folder.

Apple CD-ROM
This Extension tells the Macintosh how to communicate with Apple CD-ROM drives. It includes the information necessary for your Mac to mount Apple formatted (HFS) CD-ROMs.

Apple Guide
Apple's new interactive help system makes it extremely easy to get help. If you wondered why the System 7.5 manual is sparse, it's because the content has been moved into Apple Guide. This Extension not only contains text explaining how things work, it can actually walk you through processes. The Apple Guide engine provides access to on-line help in any application that provides a Guide file.

AppleScript
AppleScript is a scripting language that can be used to automate repetitive or tedious tasks. Although it's simpler than, say, C++, it is a real programming language, so it's not for the faint at heart. You can only control applications that have been written to support AppleScript. Watch the pages of MACFORMAT for a beginners guide to AppleScript, coming soon.

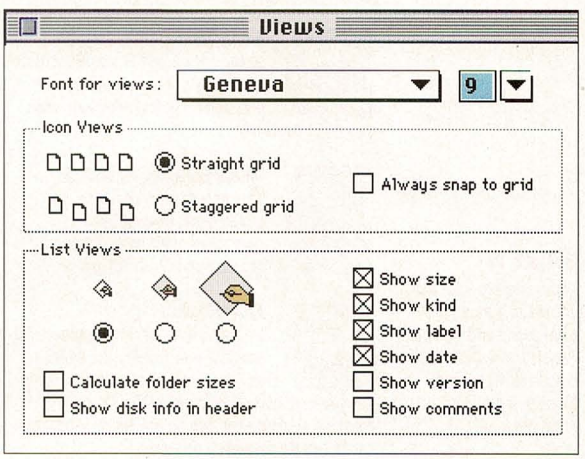
AppleScriptLib
Also ObjectSupportLib and other Lib files (Library files) are used to enhance the performance of some aspects of Power Macintosh systems.

AppleShare
This enables your Macintosh to connect to other computers that are set up to share files. Only needed on a network.

Assistant Toolbox
Provides PowerBooks with the ability to suspend print jobs until connected to a printer and enables the RAM disk to be maintained after a shut down.

CapsLock
Since the Caps Lock key on most PowerBooks doesn't lock into position, and some have no indicator light, you may not be able to tell if your Caps Lock is on or off. This displays an icon in the menu bar when Caps Lock is switched on. Only really for PowerBooks.

Clipping Extension
Part of drag and drop, it manages the creation of clippings files when a selection is dragged between applications. For instance, a graphic could be dragged directly from a document of one program to a document of another program, as long as both applications support drag and drop.



The Views Control Panel enables you to change the font used for files and folders, as well as other aspects of the screen display.

Colour Picker
This Extension is an expanded version of the wheel used to select colours in some applications. Best to keep this one.

ColourSync
This Extension is part of the Monitor/Scanner/Printer colour matching system. QuickDraw GX will not work without this Extension, so keep it in your System Folder.

Duo Battery Patch
This Extension fixes a battery management problem in the original System Enabler for the PowerBook Duo series, and so is only needed for those machines.

EM Extension
This enables the Extensions Manager Control Panel to open at the beginning of the startup cycle if the **[spacebar]** is being held down. The Extensions Manager Control Panel will still work without this Extension, but you will be unable to invoke it at startup with the **[spacebar].** See the 'Turn me on' box opposite.

BUTTON DISABLER

This Control Panel disables the sound and screen control buttons on some self-contained Macs like the Performa 500 series.

MAP IT

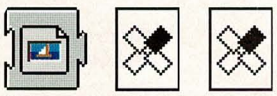
For fun, open the Map Control Panel, type **Mid** into the Find box and click **Find**.

SCREEN

This Control Panel is for brightness and contrast for built-in screens on 500 series LCs and Performas, but hey, they were never launched in the UK.

Continued on next page

FOREIGN FILES



Apple Photo Access, Audio CD Access, High Sierra File Access, ISO 9660 File Access – these files are all part of the CD-ROM driver package. They provide the Foreign File Access Extension with information needed to mount CDs that are not in the standard Macintosh HFS format. They include the PC formats High Sierra and ISO 9660, as well as audio CDs and Kodak Photo CDs. This enables you to view, say, a PC graphics CD and access some of the pictures, but you wouldn't be able to run a PC program from the CD.

JUST THE ONE

It is very bad practice to regularly have more than one System Folder on a single hard drive, as it can cause problems. If you do want two Systems, use the shareware program *System Picker.* It will be on next month's CD.

SHIFT IT

If you wish to start up your Mac with all the Extensions and Control Panels turned off, hold down **[shift]** during startup. Restart to turn them back on.

FREE BOOK!

Free with next month's MACFORMAT is a 100 page Bomb Busters book full of tips and advice on preventing System problems, solving them if they happen, and making your Mac work more efficiently. It will be accompanied by a folder of trouble shooting shareware on the CD-ROM.

EtherTalk Phase 2
This software tells your Macintosh how to communicate with EtherNet cards and networks. Only for Macs connected to EtherNet networks.

EtherTalk Prep
This Extension is a support file for EtherTalk Phase 2.

Find File Extension
This invokes the new Find File utility (usually found in the **Apple** Menu) when **Find** is selected from the **File** menu.

Finder Help
Balloon Help and Finder Shortcuts for the Finder are stored here. If you don't use Balloon Help, then you don't need this.

Finder Scripting Extension
This serves two functions. It enables you control Finder operations with AppleScript and it also contains the Drag-and-Drop software.

Finder Update
Provides the Get Info window with the ability to display the special requirements for PowerPC native applications as well as making the About This Macintosh window wider so the entire Macintosh name can be displayed properly.

FileSharing Extension
If you want other computers to be able to access the files on your Mac, this must be installed. Only for networked Macs.

Foreign File Access
Extends the Apple CD-ROM to be able to read CDs in formats other than Macintosh HFS. See the 'Foreign Files' box above.

LaserWriter
Also AppleTalk ImageWriter, ImageWriter, LQ AppleTalk ImageWriter, LQ ImageWriter, Personal LaserWriter SC, Personal LW LS, StyleWriter. All of these files instruct your Macintosh how to communicate with various printers and what features are available on each printer. You need to keep only the ones that correspond to the printer(s) you are using.

Macintosh Guide
This Guide file is used by the Apple Guide help system to give you information about basic Macintosh and System 7.5 features.

MacTCP Token Ring Extension
This is required when using the Apple Token Ring NB Card to connect to a Token Ring network. Unlikely you need it.

MathLib
The MathLib Extension increases performance for certain maths functions on PowerMacs only.

IIci/IIsi Monitors Extension
Also LC Monitors Extension, PowerBook Monitors Extension, PowerPC Monitors Extension, Quadra AV Monitors Extension, Quadra Monitors Extension. Previously, there were different versions of the Monitors Control Panel for different Macs. A new Mac meant a new version of the Monitors Control Panel. Now the Monitors Control Panel can be customised for a new model Macintosh simply by adding a Monitors Extension for that Macintosh.

Network Extension
If you're using your Mac to connect to other computers or other users are connecting to your Mac, this must be installed. It is not usually necessary for connecting to on-line services and BBSs.

PB 150 Modem Patch
This resolves compatibility problems with certain communications programs on PowerBook 150s having an internal modem.

PowerBook Guide Additions
Also Video Guide Additions and Speech Guide Additions. These files add content to Macintosh Guide specific to PowerBooks and AV Macs.

PowerPC Finder Update
Provides performance enhancements for the Finder when used on Power Macintosh systems. If you don't have one, it's no use to you.

PowerTalk Guide
This Guide file provides on-line help and instruction for the use of PowerTalk.

Print Monitor
Actually an application, it handles print spooling when Background Printing is turned on in the Chooser. Keep it in the Extensions folder.

Printer Descriptions
With the LaserWriter 8.0 driver, Apple designed a standard driver that could be used with any PostScript, LocalTalk laser printer. To access printer-specific features, you need only have a PostScript Printer Description (PPD) file that tells the LaserWriter 8 driver what's special about a certain printer. If you don't have a laser printer, you don't need this folder, and if you do have a laser, you don't need PPDs for printers that you don't use.

Printer Share
This is used to share serial printers like the StyleWriter II with other Macs on your network.

QuickTime
QuickTime is Apple's standard technology for recording, compression and playback of dynamic data like video and audio. This file enables your Mac to record and play back these files with compatible applications. If you don't play movies, disable it, – it can use a lot of memory.

QuickTime™ PowerPlug
The QuickTime compression schemes are made PowerPC native with the installation of this file. Uses a lot of memory.

Record Button
This supports a button on the Apple Adjustable Keyboard that starts and stops audio recording. It can be removed if you are not using the Apple Adjustable Keyboard (or not recording...).

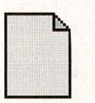
Scripting Additions
This folder contains files that give additional capabilities to AppleScript. It must remain in the Extensions folder to work.

SCSI Manager 4.3
This Extension increases performance with SCSI peripherals like hard disks and CD-ROMs. The vast majority of such peripherals today are still SCSI devices, so don't remove this Extension.

Shortcuts
An AppleGuide file that contains useful tips for maximising Finder use.

Sound Manager
All Macs have a version of Sound Manager built into their chips. This Extension is what most applications use to create all those cool sounds. This is an update to Apple's most recent release of the Sound Manager. It contains some major updates that enable some Macs to play back 16-bit sounds. This update has since been made a permanent part of System 7.5 and is no longer required as a separate Extension.

System Update
This Extension is at the heart of System 7.1 Update 3.0. This file incorporates fixes and updates that Apple made to improve the performance and stability of System 7.1. It is not required for System 7.5 or later.

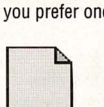


ThreadsLib
This Extension provides enhancements for PowerMacs that may be called by certain applications. It's not absolutely essential, but best to keep it.

TokenTalk Phase 2
This software tells your Macintosh how to communicate with TokenTalk cards and networks. It is only needed for Macs on TokenTalk networks.

TokenTalk Prep
This Extension is a support file for TokenTalk Phase 2.

Voices folder
Part of Apple's text-to-speech software, this folder stores the voices that you can choose from when working in an application that supports text-to-speech. You don't need to keep all of them if you prefer one, or any at all if you don't use them.



WorldScript Power Adapter
This Extension enhances Apple's WorldScript technology for use on Power Macs. WorldScript enables you to incorporate foreign language text, like Japanese and Chinese, into your documents while keeping English as the primary operating language. (See page 98 for details of *WorldWrite*, an application that makes use of this.) MF

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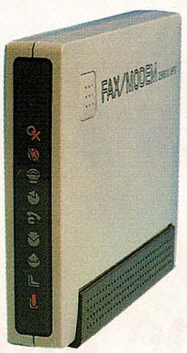

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Drugs
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Get connected!

In part two of our starter guide to the Internet, Richard Hill looks at the components you need apart from your Mac – a modem and your service provider.

Once you've decided you want to join the Internet community, there are several essential components that you'll need. We'll be trying out Internet software soon but for now, let's deal with the other parts...

There are two main ways of getting onto the Internet. The first is to be lucky enough to either work in a company or go to a college that has a direct connection. Future Publishing, for example, is part of the Net with its own Web site, so MACFORMAT gets speedy access to the rest of the Net through this connection.

The other way, which most people have to settle for, is to use the telephone system. Your Mac can use your telephone line to reach the Internet. You'll need to call a particular number to do this, which is where a service provider comes in. This is a firm that does have a direct Net connection and charges you to let you use it.

What you need

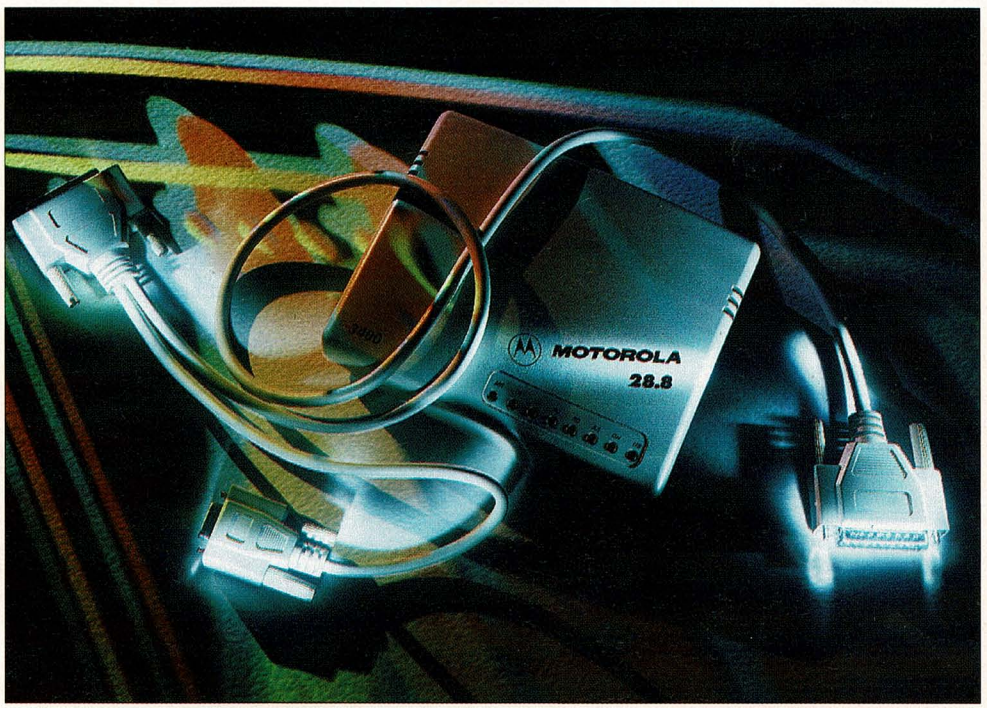
But technology being what it is, things aren't as simple as that. You need a device called a modem to convert signals from your Mac so they'll travel down the phone line. Fortunately, there's long been an international standard on the few formats the converted signals should take – these are the V numbers you'll notice these in adverts for modems (V32 and V34 for example).

Different standards have had to be introduced because improving technology means modems are able to send and receive signals at greater speeds. A fast modem will save you time and money when using your phone line.

Modem speeds are measured in bits per second (bps) – but the speed you genuinely need depends on what you're going to be doing. If you're just occasionally sending and receiving small pieces of electronic mail, a low-cost 9,600 bps modem will do the job. If you intend to use e-mail more often and dabble in other parts of the Net, you'd do better to get a 14,400 bps device for around £170. And if you're going to use the Net heavily, especially if you want to explore the graphically-intense World Wide Web or even get hold of software over the Net, you should invest in a 28,800 bps speed machine, which you can get for less than £270.

While modems have been getting cheaper and faster recently, you can feel fairly sure that the speed at least is peaking for the time being. Modem makers we've spoken to say they're reaching the limit of the speed at which the signal can be transmitted, because of the phone lines themselves. So while there'll be some models sneaking above 28,800 bps, it won't be until BT and other phone companies revamp the whole network that modems will accelerate as dramatically as they have been doing. But you can expect prices to keep falling...!

Make sure you get a modem that's been given a licence by the regulatory body BABT. These are the only ones approved to work on BT phonelines, so you can be confident they won't disturb your phone and answering machine set-up. And ensure that the modem you're sold is for a Mac – if you don't ask specifically for the Mac version, you could get an unpleasant surprise.



Motorola are one of the firms getting into modems as prices tumble – it's an essenital device if you want to get onto the Internet.

All part of the service

Once you have your Mac and your modem, you'll need a service provider. You can dial these companies and they'll give you Net access, but they'll charge a fee to let you use their lines. When you're trying to work out how much you'll be spending to use the Net, don't forget that their fees are separate from the cost of making the phone call.

Companies tend to charge on a monthly or annual basis. We've compiled a small list of some firms, giving the prices you'll end up paying in the first 12 months. Some ask for a one-off fee to get you started. There are so many options for the services you can have that we don't have space to list who does what – but what the firms here have in common is they give you Mac software as part of the package. There are many firms out there, but not all of them cater specifically for

Continued on next page

PREVIOUSLY...

In part one of this series (last issue), we looked at what the Internet is and the main areas that make it up. If you missed that, you can order a copy of that issue on page 129.

MACTCP: DON'T LEAVE HOME WITHOUT IT

There's one more thing you must have to use the Net. MacTCP is a Control Panel for your System Folder that enables your Mac to understand the standards used on the Internet.

But unless you're using System 7.5 – when MacTCP comes free – you may not already have MacTCP. Ask your service provider if they can offer it to you (CityScape and Maxis certainly do). It's also on sale for about £20 from most Mac dealers, or there's a copy with the book *The Internet Starter Kit*, which you can get through the MACFORMAT mail order pages – see pages 126-129.

Now that MacTCP is free with System 7.5, it would be nice if Apple could make this basic communications necessity free for everyone.

SERVICE PROVIDERS – TOP OF THE POPS

Name	Description	Points of Presence (PoPs)	Registration	First year	Time charges	Contact number
CityScape	Internet access provider	Bi, Bs, Ca, E, Ln, M	£58.75	£211.50	No	01223 566950
CompuServe	Dedicated on-line service with own pages	Bi, Bs, Cr, E, Gg, Ln, M, R	Free	From £75	Yes	01734 391064
Demon	Internet access provider	*Bi, Br, Bs, Ca, Cf, Co, E, Gl, H, IoW, Ld, Le, Li, Ln, Lu, M, Ne, Nt, Pr, R, Sh, SW, W	£14.69	£141	No	0181 371 1234
eWorld	Dedicated on-line service with own pages	Be, Bi, Bs, Ca, E, Ld, Ln, M	Free	From £75	Yes	0800 896206
Maxis On-Line	Internet access provider	170 PoPs in the UK	Free	£211.50	No	0171 252 0252
Rednet	Internet access provider	Bi, Bs, Ca, E, Ln, M	From £29.38	From £211.50	No	01494 513333

Please note that although we have given the cost for using each service in your first year for easy comparison, some firms actually charge by the month – we simply added together 12 monthly payments. CompuServe and eWorld charge in US dollars, so the prices given here are approximate.

Key to PoP towns: Belfast – Be; Birmingham – Bi; Bradford – Br; Bristol – Bs; Cambridge – Ca; Cardiff – Cf; Coventry – Co; Crawley – Cr; Edinburgh – E; Glasgow – Gg; Gloucester – Gl; Hull – H; Isle of Wight – IoW; Leeds – Ld; Leicester – Le; Liverpool – Li; London – Ln; Luton – Lu; Manchester – M; Newcastle – Ne; Nottingham – Nt; Preston – Pr; Reading – R; Sheffield – Sh; Saffron Walden – SW; Wolverhampton – W

***Demon will be adding several hundred PoPs at the end of August. They reckon 78% of the UK will able to connect at local call rates.**

JARGON BUSTER

Modem stands for modulator-demodulator – it converts your Mac's signals into code that can travel down the phone, and decodes anything that comes in as well.

SITE UNSEEN?

If you're already on the Web, you can visit each of the sites created by the six firms we've mentioned here. Their Web addresses are in the Computing section of MACFORMAT's World Wide Web Road Map on FutureNet. Go to http://www.futurenet.co.uk/computing/macformat.html

Mac owners. There's nothing to stop you getting hold of the software you need through other sources (like MACFORMAT CD-ROMs or shareware libraries), but it's extra work.

If you'd like to see a longer list of what's available, check out our sister magazine *.net* for their regular update.

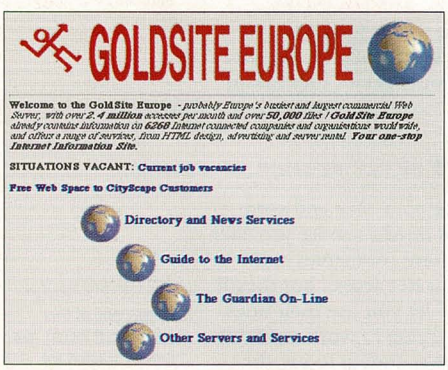
While you're shopping around for the service deal that best suits your needs, bear these points in mind:

- What are they offering? Some companies, like CompuServe and eWorld, focus on offering their own information services that are exclusive to their subscribers. But using some parts of these areas may incur extra costs on top of your basic fee.

On the other hand, you may not want to shell out for a full Internet package if all you're looking for is someone to give you an electronic mail (e-mail) address. MACFORMAT will be looking at the main areas and how you can make use of them over the coming issues.

- Make sure you get a clear idea of the costs – add up the registration fee and ongoing monthly or annual fees, and also find out if there's any sort of an hourly fee while you're on-line. Are there any extra costs for using specific areas?
- Service providers use a system of telephone numbers called Points of Presence (PoPs) – essentially local numbers for you to call. Find out what PoPs the firm offers – a cheap subscription is of less use if you live in Edinburgh and have to make calls to London just to connect up.
- What software do they give you? The firms listed here give you the programs you need to use their services.
- How many lines have they got? Most firms can quote you a modem-to-user ratio figure – how many people there are trying to share the same line. 30-to-1 is a decent minimum; 15-to-1 or even 10-to-1 is much more like it – as you're less likely to get an engaged tone.
- And what are the speeds of the lines in your area? You might find your shiny new 28,800 bps modem has to work through a 14,400 bps line – not much cop. You shouldn't have a problem finding a fast line in London, and the companies are working on getting the regions up to speed as well.
- What level of technical support do they offer?

And that's all there is to it...! Next time, we'll examine the ins and outs of e-mail – the system Netters use to send messages to each other. **MF**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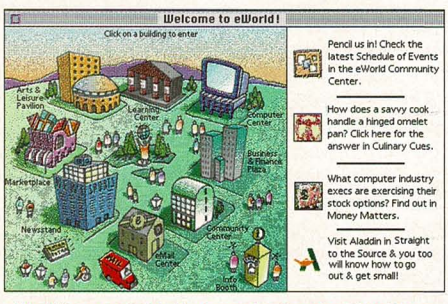
As well as their connection service, CityScape also run a huge Web site – there's a link on FutureNet.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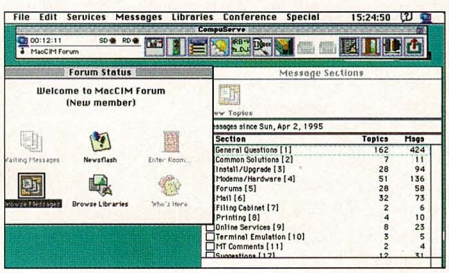

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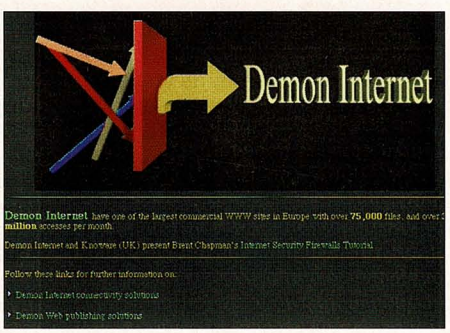
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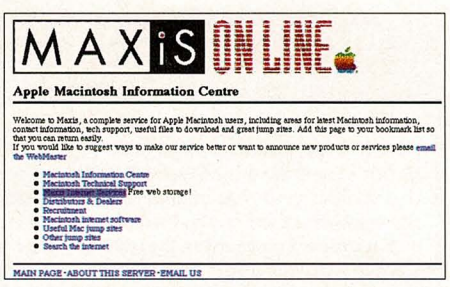
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Numbers can be fun

From checking your bank balance to planning your business – a spreadsheet could assist with both. In a new series, Rod Lawton lifts the lid on spreadsheets...

Spreadsheets get a raw deal. Most people think of them as being boring, complicated, hardware-hungry and unfathomable – and totally irrelevant unless you're an accountant.

That's rubbish. Sorry, but it is. Spreadsheets are actually fantastically clever and versatile pieces of software that are very badly misunderstood. It all hinges on how you understand them. If you imagine that they are built only for complex financial modelling, and that no spreadsheet document could possibly occupy less than ten acres of paper and take less than six months to develop, then you're bound to give them a wide berth. But that is just one extreme of what spreadsheets can accomplish. The fact is that spreadsheets basically pick up where calculators leave off. They enable you to work things out. Where a calculator has a memory, a spreadsheet stores a figure in a cell. Where a calculator might only be able to store one number, a spreadsheet can store thousands. And where a calculator can only perform one calculation at a time, a spreadsheet can do hundreds, often based on the results of other calculations.

Does it have to be this hard?

Spreadsheets look complicated on-screen, but the nitty gritty stuff is really quite simple. The sort of document an accountant produces will be very methodical, obtuse and – until you understand it – incredibly convoluted. But that's down to the accountants, not the spreadsheets. A spreadsheet will enable you to carry out a sequence of calculations in whatever order you like, in as many steps as you like.

Spreadsheets offer as much control over design and layout as many DTP programs

And just because accountants produce spreadsheets consisting of a giant rectilinear grid filled with meaningless text and numbers, all in a single size, don't assume you're stuck with it. Spreadsheets offer as much control over design and layout as many low-end DTP programs. Many support independent 'floating' text boxes and all can import graphics. And with the ability to change fonts, typestyles and sizes – just like most other Mac applications – there's no excuse for dull-looking spreadsheets. You can switch off the gridlines, switch off the row and column headings, increase the point size of your title, add a few lines and labels and end up producing a document that looks not even remote-

NEXT MONTH

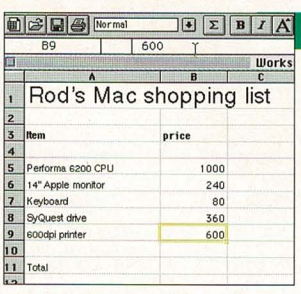
A guide to basic spreadsheet planning, more on cell contents and cell formulae – and how to move and copy them without getting your calculations all crossed up.

THE SECRET FORMULAE...

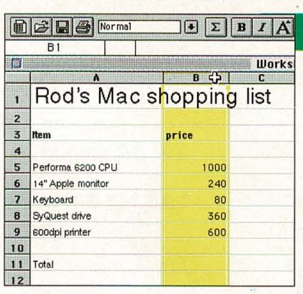
Spreadsheets can handle and display numbers in many different forms. *Excel* can convert the same number into any one of several different formats, as shown below:

- Number – ordinary numbers, but you can define the number of significant digits or decimal places displayed: 26.79
- Currency – displays a £ sign before the number, with two decimal places (or none, if you want to round up the figure): £ 26.79
- Date/Time – will display a number in a variety of date/time formats – for example, year/month/day, hours/minutes/seconds and so on: 27/1/04 18:57
- Percentages – displays numbers as percentages with variable numbers of decimal places: 2679.00%.
- Fractions – for people who can still only think in fractions, this could be a godsend: 26 4/5.
- Scientific – scientists prefer to think of numbers as being between one and ten but raised to the appropriate power of ten: 2.68E+01

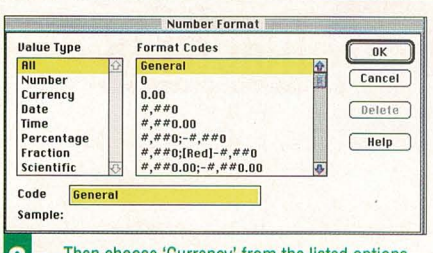
HOW TO SET UP YOUR OWN SPREADSHEET



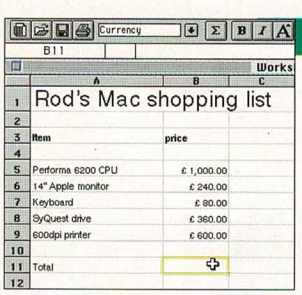
1 Here's the shopping list for my new Mac system, with prices. The default spreadsheet setting means you can type in text or numbers.



2 If you want to add a £ sign and include pence in the prices, first select the cells (just click on the column heading)...



3 ... Then choose 'Currency' from the listed options in your spreadsheet's number formatting menu.



4 Now you can set up the 'Total' cell. Just click on the currently empty cell beneath the column of prices. (You can still alter prices at any time.)

5 You now need a formula to total the figures above. With *Excel* there is a Σ icon on the toolbar that automatically the inserts right formula.

6 The formula is in the formula bar and the cell. Hit **[enter]**, click on the tick or select another cell, and the total appears. Change any figures and the total's updated.

Anatomy of a spreadsheet

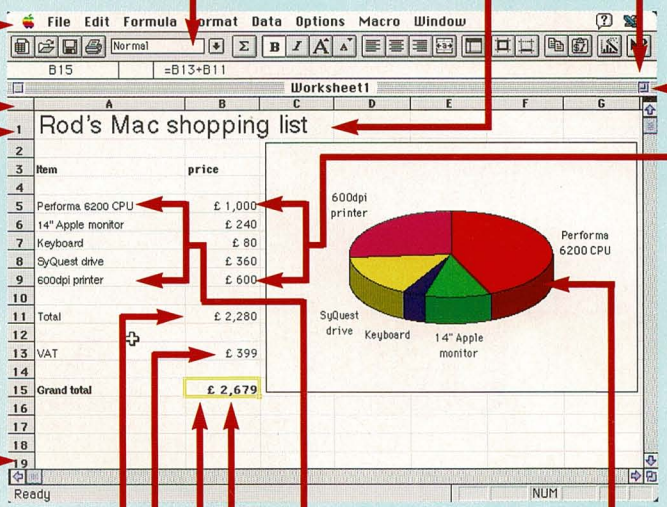
Menu bar
The menus in spreadsheet programs are pretty much like Mac menus anywhere. The **File** menu – broadly – deals with loading, saving and otherwise manipulating files. The **Edit** menu handles the data within files – copying, pasting, moving etc. The rest of the menus are spreadsheet-specific. The **Formula** menu concentrates on the type of data to be handled within individual cells and sets of cells, the **Format** menu is all about the layout of your spreadsheet, while the other menus are specific to the program – in this case, *Excel*.

Toolbar
Excel uses toolbars, while simpler spreadsheet applications – like the one in *ClarisWorks* – might not. A toolbar is a collection of icons which provide shortcuts to common actions. For example, in the standard *Excel 4* toolbar there are icons to save, open and print files. You can also 'sum' a set of cells, set the cell contents in a bold, italic, larger or smaller typeface, change the alignment (left/right/centred) of the cell contents and so on. (*Excel* offers lots of pre-configured toolbars based on specific needs, while *ClarisWorks* offers a floating palette of short-cuts – but the principle is the same.)

Formula bar
The cells in a spreadsheet can contain either a fixed value typed in manually, or a value the spreadsheet calculates according to a formula. By just looking at the cells it might not be obvious which of these a cell contains. If you click on the cell, though, the formula bar at the top of the screen displays the 'real' cell contents. If they are the same as what you see normally, you'll know it was typed in manually. If you see something like our example – a mathematical calculation based on other cells – you'll know that the cell contents have been calculated by the software. The formula bar is where you create these calculations.

Title
Spreadsheet cells are highly flexible. You can use them to type in numbers, calculations (formulae) or, in this case, plain text.

Document window
This is the spreadsheet document itself. You can resize, drag and close these windows like any other Mac window.



Column headings
You can hide these if you want to, but they're useful for working out cell co-ordinates. If you want to change the width of a particular column – column A, say, so that you can fit in wider labels – you can simply drag the line dividing A from B to the right.

Row numbers
Again, you can hide these if you want to, but they are generally useful. As with column widths, you can change a row's height by dragging the dividing line between it and the next.

Numbers
These cells contain prices I assembled while I was shopping for my new Mac set up. Note the fact that they are rounded off to two decimal places (the pence) and that they have a pound sign in front of them. You don't have to do either of these things manually – you simply type in the price (in pounds) and then select all the cells that would contain prices and choose the 'currency' format for these cells. There are many other number formats you can choose to suit the type of data you're dealing with.

Chart
All decent spreadsheets enable you to easily create charts from sets of data. For this example, you select the relevant range of cells (in this case from A3 to B7) and click on the chart creation button on the toolbar. The program works out that the cells containing text must be labels for the chart, and that the cells containing numbers are the data to be charted. I selected a 3D pie-chart display and the software did the rest. Dragging on any of the corner handles will resize it, while dragging from the centre enables you to reposition it anywhere within your spreadsheet document. The chart created can be double-clicked on for editing.

Total
This cell has been set up to calculate the sum total of the prices for my Mac equipment. This formula can be typed in by clicking on the cell once, which puts the cursor in the formula bar, where you can enter the appropriate formula. When you click on another cell, or otherwise leave this cell, the formula previously visible in the cell is replaced by the number it calculates.

VAT
This cell contains a formula for calculating the VAT payable on my shopping list. Again, it's pretty simple. All you have to do is click once on the cell so that you're then typing into the formula bar. Then you press **=** to indicate that the call is to contain the result of a calculation. Then you click on the cell containing the total (B11) and that inserts 'B11' after the **=** sign. Then you click on the multiply sign, ***** (asterisk) and type **0.175**, to calculate the VAT payable (17.5%). The precise way in which you enter a formula like this varies from program to program, but they're all broadly similar.

Selected cell
When you click on a cell, it's highlighted by a thicker border. You can click on more than one cell, though. If you drag through a range of cells you highlight the whole 'range'. This is useful if you want to move a whole block of cells somewhere else, or apply a different number or style format to the group.

Grand total
This cell contains another formula – one that adds the VAT to the basic total. This was easy to set up: first, select the cell, type **=** in the formula bar, then click on the cell containing the basic total (B11), type **+**, then click on the cell containing the VAT. Now, when you click elsewhere, or click on the tick in the formula bar to confirm you're happy with your formula (a tick and a cross are displayed while you're typing in the formula bar for confirming or rejecting what you've typed), the 'Grand total' is calculated automatically and displayed in that cell.

Labels
Well, we've called them labels – what would you call them? Whatever numbers you crunch into your spreadsheet, it's handy to be able to write what they refer to alongside. It's one of the great strengths of spreadsheets that the cells accept plain text as well as numbers (and formulae).

ly like a spreadsheet. But you can still feed in new numbers to check 'what if' scenarios.

Spreadsheets the *easy* way

Throughout this series on spreadsheets, we'll be looking at the wide range of things spreadsheets can do – and how they do them. We'll be concentrating on the types of things regular Mac users will want to do (not accountants) and explaining things in proper English… revolutionary, maybe, but we think it could catch on. This month we've taken a screen shot from *Excel 4* and annotated it – as you can see above. It takes what looks like a complicated display and breaks it down into bite-sized pieces.

If you read a spreadsheet manual and listen to the experts, you will come away thinking that even the simplest spreadsheet document could take a beginner years to unravel. Nonsense. Spreadsheets are useful at all levels. The example annotated above is ludicrously simple for a spreadsheet to handle, was set up in minutes, and yet couldn't have been handled by any other sort of application.

Spreadsheets are great, and we're going to prove it. **MF**

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SlideShow

This month the well-stacked Rod Lawton demonstrates yet another handy *HyperCard* utility, how to build in on-line help and the latest news of *HyperCard 2.3*...

Following this month's theme of image processing, our regular CD-ROM stack is called *SlideShow* and it's a *HyperCard* utility for compiling lists of PICT files and playing them as slideshows. It uses a whole series of techniques we've explored in recent issues, bringing them together to form a useful little program.

Getting in the picture

For a start, *SlideShow* makes use of *HyperCard's* `picture` XCMD for displaying external PICTs and also the 'hidden field' technique used in the *JobsWorth* stack featured in MACFORMAT 24 for storing full pathnames.

Although *HyperCard* offers only a mono display, it is still capable of loading and displaying external PICTs in full colour. If you know the full pathname of the PICT you want to display, then you can simply write the command like this:

```
picture <filename>
```

However, there's a much easier way of loading a file, and that's to use the `answer file` command to find it in the first place:

```
answer file "Choose ¬ a
PICT" of type PICT
```

Find *SlideShow!* on this month's MACFORMAT CD-ROM

This presents you with the standard Macintosh file-finding dialogue which will enable you to locate the file you want. When you click on OK, the file's full pathname is stored in the HyperTalk variable 'it'. You can then use the following picture command:

```
answer file "Choose a PICT" ¬
of type PICT
picture it
```

You then get a standard Mac window containing the PICT – a window that you can drag, resize, scroll and close as you wish.

What's in a name?

SlideShow displays PICTs, but it also stores their names in the field we're going to use as the basis for our slideshow. In fact, we use two fields. This is because we are used to dealing just with Mac filenames, whereas HyperTalk has to work with full pathnames. We can get round this by storing the full pathnames in a hidden field, and the corresponding filenames in another, visible field. The answer file command only provides us with a full pathname, which might be something like this:

Hard Disk 40:Desktop Folder:FREELANCE:MACFORMAT:HYPERCARD SERIES:HYPERCARD MAY:GRABS:TotalIt! screen

But only the text after the last colon is the filename we're used to. However, it's easy enough to extract this simply by repeatedly taking out the first character of the pathname until there are no more colons left (colons are not recognised as a legal part of a filename, so there's no danger of eating into the filename itself). That's what this routine does for you:

```
repeat until ":" is not in ¬
pathname
  delete char 1 of pathname
end repeat
```

It's quick and dirty, but it works.

From then on, all we have to do is make sure that whatever we do with the field containing the filenames and the hidden field containing the full pathnames is done in tandem so that the two don't get out of synch. This is so we can look up either the filename or the full pathname by referring to the same line number in one of the two fields 'slidelist' and 'slidelistpath.'

Incidentally, the `repeat` routine above is also used when the time comes to close PICT windows – annoyingly, while you need to use the full pathname to open a PICT, you need to use just the filename to close the window again... which means we have to cut down the pathname as before.

Keeping in synch

Keeping the contents of the two fields – the one containing the filenames and the one containing the full pathnames – was a little bit tricky. It was harder than in the *JobsWorth* stack because this time I wanted to be able to change the order of the files in the list – and hence the order of the slides in the slideshow.

I decided the most reliable way of moving filenames around was to cut the name, place it in a separate field, then paste it back in again. That worked easily enough – the hard part was synchronising the same manouevre with the hidden field containing the pathnames. Basically, it meant duplicating each operation on the

Continued on next page

¬ SYMBOL

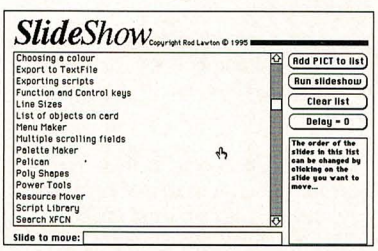
The symbol '¬' in the scripts on these pages means that the text should run as one continuous line.

2.2 OWNERS TAKE NOTE!

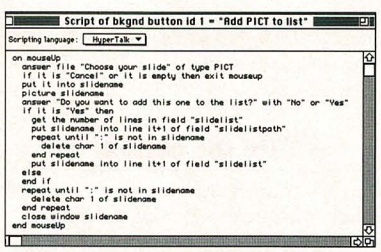
If you've got *HyperCard 2.2* you can use the colour tools to 'place' PICTs on cards. PICTs can either be kept as external files or installed as stack resources.

GOING LOOPY

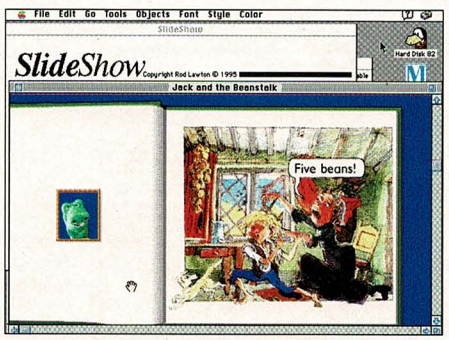
It would be easy to add more sophistication to the *SlideShow* stack. For a start, you could build in a looping option that begins the slideshow all over again when you reached the end.



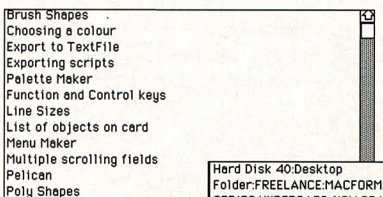
You can view PICTs as an automated sequence. You can create new slideshows, change the order of slides and vary the delay between slides.


Script of bkgnd button id 1 = "Add PICT to list"
Scripting language: HyperTalk
on mouseUp
answer file "Choose your slide" of type PICT
if it is "Cancel" or it is empty then exit mouseup
put it into slidename
picture slidename
answer "Do you want to add this one to the list?" with "No" or "Yes"
if it is "Yes" then
get the number of lines in field "slidelist"
put slidename into line it+1 of field "slidelistpath"
repeat until ":" is not in slidename
delete char 1 of slidename
end repeat
put slidename into line it+1 of field "slidelist"
else
end if
repeat until ":" is not in slidename
delete char 1 of slidename
end repeat
close window slidename
end mouseUp

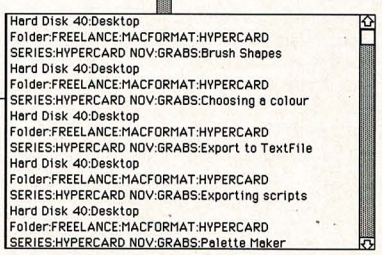
The script that adds slides to the slideshow list has to store the filenames twice – once as filenames only, once as full pathnames.



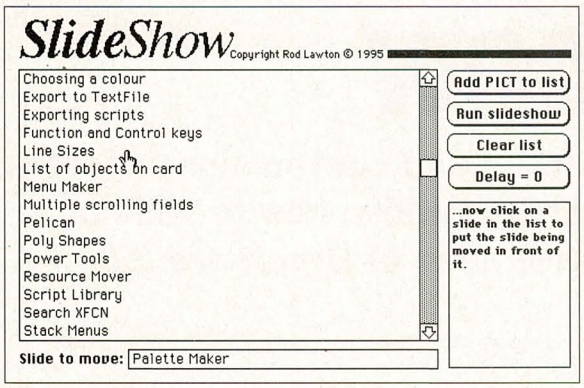
SlideShow uses HyperTalk's **Picture** command to display full-colour PICTs (one of *HyperCard's* few concessions to the late twentieth century).



This is the same technique used in *JobsWorth* in issue 24. Filenames are stored in the invisible 'slidelistpath' field.



... So *HyperCard* can find the files again, the full pathnames are kept in the 'slidelistpath' field.



Setting up scripts to move slides up and down the list was complex, because the same lines had to be moved in both the 'slidelist' and the invisible 'slidelistpath' fields.

'slidelist' field with an identical operation on the 'slidelistpath' field.

But since this slide-moving operation meant copying a slidename into a temporary field, we would have to do the same with its full pathname. How? The answer was to put the slidename into the first line of the temporary field and the full pathname into the second line... and then resize the field so that only the first line was visible, hence hiding all the work that we were having to do with the full-size pathnames.

The HyperTalk programming wasn't difficult once it was obvious what needed doing. Here's the handler that cuts the slidename you select and puts it in the temporary field:

```
on cutslide
  get word 2 of the clickline
  put line it of me into ¬ line
1 of field "slidetomove"
  put line it of field ¬
"slidelistpath" into line ¬ 2
of field "slidetomove"
  delete line it of me
  delete line it of field ¬
"slidelistpath"
  put "...now click on a ¬ slide
in the list to put ¬ the slide
being moved in ¬ front of it."
into field ¬ "messages"
end cutslide
```

This handler gets the number of the line you clicked on, then puts the name on that line into the first line of the 'slidetomove' field and then puts the pathname on the corresponding line of the 'slidelistpath' into the second, unseen, line.

The pasting operation works pretty much the same way, but in reverse:

```
on pasteslide
  get word 2 of the clickline
  put line 1 of field ¬
"slidetomove" & return ¬ be-
fore line it of me
  put line 2 of field ¬
"slidetomove" & return ¬
before line it of field ¬
"slidelistpath"
  put empty into field ¬
"slidetomove"
  put "The order of the ¬
slides in this list can be ¬
changed by clicking on the ¬
slide you want to move..." ¬
into field "messages"
end pasteslide
```

Note how, in both cases, the last statement inserts a 'status' message into one of the fields on the card. Take a look at the 'Real-Time On-Line Help!' box for more on this useful way of offering help.

Both of the above handlers for moving slidenames are in the script of the 'slidelist' field. Since both cutting and pasting are achieved with a single click, this field's script also has to be able to work out which you mean to do. It does this simply by checking the 'slidetomove' field. If it's empty, you obviously want to copy something. If there's something in it, it's clearly a slidename you've just copied and want to paste back in. Here's the simple handler that works this out:

```
on mouseup
  if field "slidetomove" is ¬
empty then cutslide
  else pasteslide
end mouseup
```

On the button

There's another interesting trick in this stack. I wanted to include a means of varying the delay between each slide, and the obvious solution was to create a field where you could type in a delay value in seconds. However, there was another, more interesting solution. Button names are like any other piece of text – they can be modified on the fly. It would be interesting to reset the name of the Delay button to include the selected time delay. This is the script that does it:

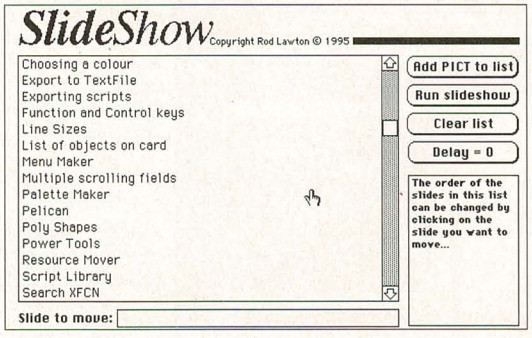
```
on mouseUp
  ask "Extra slide delay ¬
(secs)"
  set the name of me to ¬
"Delay = " & it
end mouseUp
```

Then all we need to do is make sure that our slideshow script can extract the necessary information when calculating the delay. Remember, this is 'embedded' in the button's name. This is how it's extracted:

```
get the short name of ¬
background button ID 7
put the last word of it ¬ into
delay
```

The variable 'delay' is then used later in the script to decide how long any one PICT is displayed for.

That's a quick run-down of *SlideShow*, showing how the same useful techniques can pop up again and again in *HyperCard* stacks. **MF**



I included on-line help with *SlideShow*. MouseEnter handlers associated with each field and button insert some explanatory text on the card.

REAL-TIME ON-LINE HELP!

SlideShow incorporates a help system a bit like Balloon Help: it has a 'messages' field that displays a brief summary of the function of each object as the mouse pointer passes over it. This is just one way in which *HyperCard* can display user help, and you'll find it's very easy to achieve.

Each object on the screen has its own function and explanation. You can include this in the object's script as a piece of text that's placed in the 'messages' field whenever the mouse pointer enters that object. Here's the code you use:

```
on mouseenter
  put "This lets you view ¬
PICTs you might want to ¬
add to the list" into field ¬
"messages"
end mouseenter
```

This is the 'help' text from the 'Add PICT to list' button. Just to keep things tidy, though, we're going to want the message to disappear when the mouse pointer leaves the object again. This is easy to achieve with the following handler:

```
on mouseleave
  put empty into field ¬
"messages"
end mouseleave
```

All you need to do is just make sure that this handler is included for each object... or do you? Well, no, there's actually a far easier way. If you put this handler in the background script (or the card script, if you're only ever going to use one card), it's accessible to all objects. If the objects don't have their own 'on mouseleave' handlers, the 'mouseleave' message will pass on up the hierarchy until it meets one. This way, you only have to put the handler in once.

PICTURE POWER

HyperCard's picture windows have several properties you can set up in scripts: the window style, its location, its bit depth and even the magnification of the image – from 3.125% to 3,200% of its original size! Picture windows also respond to mouseclicks and some other mouse actions common to fields and buttons too.

NEXT MONTH

HyperCard 2.3 is out! We have it and we've used it. Next month we'll be telling you what we think of it. *And* we'll be putting it head to head against its old rival *SuperCard*, in its latest version, 2.0. We've heard big things about *HyperCard 2.3* – including the incorporation of colour paint tools – so this will be one showdown you can't afford to miss!

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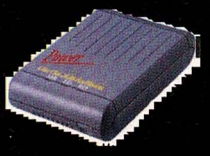

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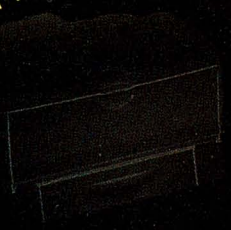

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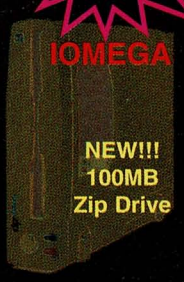

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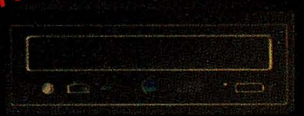

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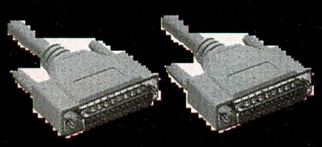

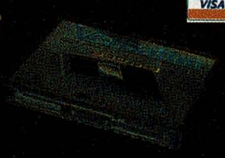

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MAC ANSWERS

There is nothing quite so pitiful as an unhappy Mac, so here to cheer yours up and put a smile on its face is the MACFORMAT team of experts. We aim to please.

Hello, and welcome to MacAnswers, the section of the magazine dedicated to solving your problems. This month's experts are Simon Cox, Jim Chandler and Derek Smith. If you have a query, fill in the form on page 86 and send it in, or e-mail us on macformat@futurenet.co.uk including full details. Alas, we can't answer your questions over the phone – not because we don't know the answers, we just find the phone a bit tricky to master.

Quark crazy

QUARKXPRESS

Q *Is there any way the* QuarkXPress *Pasteboard XT XTension by Markzware can be removed from* Quark 3.3 *documents? Every time I open a document in* XPress *the XTension embeds it into the document, so when I try to open the document on another Mac, it asks for the Pasteboard XT. So the problem spreads.*
Oliver Essame
Linford Wood, Milton Keynes

A You're not the first person to have reported this problem. The Pasteboard XT is actually pretty useful. It extends a document's pasteboard (the non-printing working area around the page) from *Quark's* maximum of 100% of the document's width and a piffling few centimetres above and below to almost any size you could want.

Trouble is, any document created while Pasteboard XT is loaded will always need the XTension to be present before it can be opened again. Markzware, after many similar complaints from *XPress* users rapidly drowning under Pasteboarded documents, have released a hunter-killer XTension, called Pasteboard XTerminator (excellent name).

Simply remove Pasteboard XT from your XTension folder, replace it with the XTerminator, and start *QuarkXPress*. You will now be able to open affected documents and use XTerminator to save them without Pasteboard contamination.

Another XTension which does the same job is Anti-Pasteboard XT. Both XTensions are available from on-line services such as CompuServe. **JC**

Write to me

COMMS

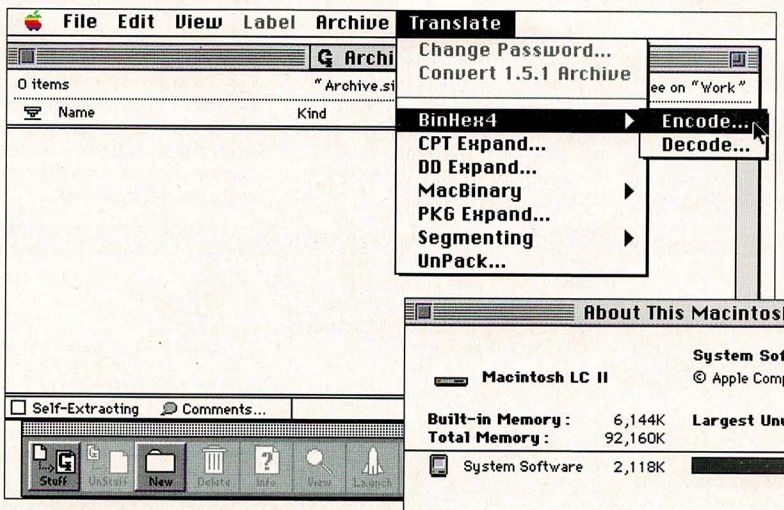
Q *I have a fast modem and Internet access and can send e-mail. However, I want to send graphics files to people and I do not know how to do it. Can you help?*
Anne Hutchings
London

A Internet e-mail was originally designed to send only text documents. Text documents are obviously totally different from graphics files. As I am sure you know, text files are usually divided into eight-bit chunks called bytes, each byte representing a single letter. Also, text tends to be divided up into sections (either lines or paragraphs) while a graphics file would not contain such divisions.

As such, if you were to send a graphics file directly through the Internet mail it would probably be destroyed. The solution to this is to encode it as text – in other words, convert it into letters and split it into lines.

There are various encoders in use on the Internet but the one that is used on Macs is called BinHex. Many Internet mailers (like *Eudora*) will automatically encode and decode files in BinHex. If you are not using such a mailer then obtain one of the *StuffIt* utilities such as *StuffIt Lite* or *DropStuff* – both are shareware. Then before you send an application encode it as BinHex. The person who receives a BinHex file simply reverses the process using *StuffIt*.

Note that when a file is encoded in BinHex it gets bigger, so it is worth compressing it first (again you could use *StuffIt*). *StuffIt Expander* can decompress a compacted file, then uncode it all in one process. **SC**



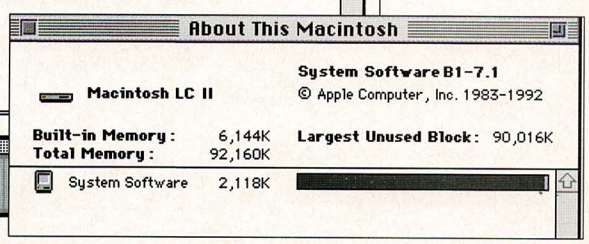
A shareware utility such as *StuffIt* can encode graphics files into BinHex format, which then enables you to send them as an e-mail message. See 'Write to me'.

More more RAM

RAMDOUBLER

Q *In* MACFORMAT *16 you demonstrated how to change* RAM Doubler *to give even more free RAM. Since upgrading from version* 1.0.1 *to* 1.5.2, *I can no longer find the appropriate resource file to alter. Am I no longer able to have three to sixteen times as much RAM?*
Damon Creed
Wrecclesham, West Surrey

A It's a good idea to use the latest version of *RAM Doubler, 1.5.2*, because it contains several bug fixes, such as a problem earlier versions had with the System 7.5 update. Unfortunately, this means you can no longer make *RAM Doubler* into a RAM Trebler, Quadrupler and beyond. The feature that we showed you how to exploit in earlier versions was actually a leftover from when *RAM Doubler* was being



How about that, an LCII with a monster 92Mb of RAM. Of course it still wasn't enough! See 'More more RAM'.

Continued on next page

WHO'S JIM CHANDLER?

Jim has been working in the professional printing industry for eight years and uses all the major software applications on both Macs and PC compatibles.

WHO'S SIMON COX?

Simon is a real computer boffin with a PhD in computer science, and has been using Apples since the original Lisa.

DOT TIPS

If you want to write an ellipsis (the three dots that end phrases such as Read on...), type **[option] [;]** rather than three full stops. This stops them spreading when text is justified.

HYPERCARD TIP

To open two or more stacks at once in *HyperCard*, hold down **[shift]** when you select **Open** from the **File** menu.

CURLY TIP

To get proper curly quotes use the square brackets next to **P**. Press **[option]** **[** for “, **[shift]** **[option]** **[** for ”, **[option]** **]** for ‘ and **[shift]** **[option]** **]** for ’.

tested. The feature was not properly included in the product that was shipped and Connectix were annoyed that people started using it. So they changed the way *RAM Doubler* worked and completely removed the feature. Spoilsports. If you have an earlier version of *RAM Doubler*, the update is on this month’s CD. **SC**

Hard luck

DISK DRIVES

Q *I purchased a second-hand SE/30. When I bought it I erased the hard disk and installed System 7.0 and then upgraded to System 7.1. I named the hard disk ‘Mike’s’ but when I perform a ‘Get info’ on it in the Finder, it says ‘Mike’s, Stephanie’s 50 (SCSI 1)’. I have also discovered that I am unable to use* Apple HD SC Setup, *as I get the message ‘Drive selection failed, unable to locate a suitable drive connected to the SCSI port.’ Also, when I used* SCSI Probe *I discovered that the Mac was at SCSI address 7 and the disk drive was at SCSI address 1. I always thought that internal drives were at SCSI address 0. Can you please give me your considered opinion?*

Michael Turner
Bedlington, Northumberland

A What has happened here is the previous owner of your machine has replaced the internal drive. When they did this they used a drive which is not used by Apple themselves. This is why when you use the *Apple HD SC Setup* application it cannot find the drive, as that application contains a table of drives which Apple have used in their machines.

Also, for some unknown reason, the previous owner of your machine decided to install the new drive at SCSI address 1. There is no technical reason why the internal drive should be at address zero – it is just a convention, and ensures that it is the first device the Mac tries to load the System from.

The most interesting point in your question is the name ‘Stephanie’ appearing in your Get Info window. The Finder puts two pieces of information in this window – the name of the disk drive as it appears on the Desktop and some information from the disk driver software. In the screenshots on this

‘It’s brilliant! It takes anything!’

CREATING A CUSTOM ICON

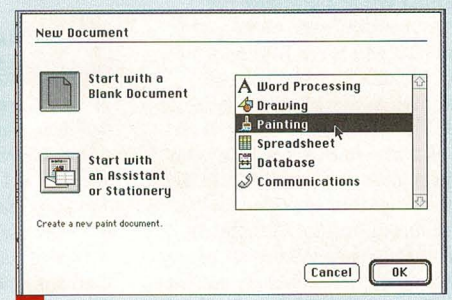
DIY Icons

SOFTWARE

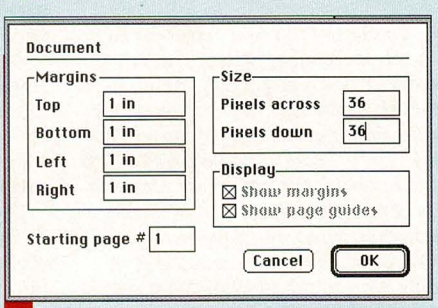
Q *I want to create my own icons and understand that I need to use* ResEdit. *I have a copy but am reluctant to use it because I am told it can damage the System. Does* ClarisWorks *have a facility to create icons?*

Martin Miles,
Bristol, Avon

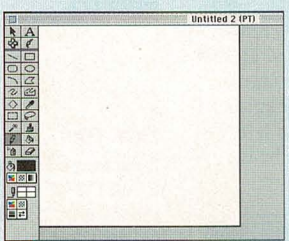
A *ResEdit* won’t harm your System if all you do is create icons, but it’s akin to using an elephant gun to kill a mouse. *ClarisWorks* does not have a built-in icon creation facility, but can do the job using the paint module. Remember that all Mac icons have a maximum size of 32 pixels square. Here’s what to do...



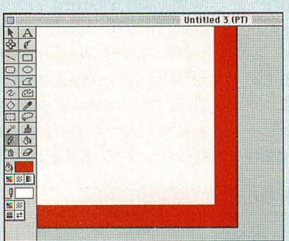
1 Open *ClarisWorks* (although any bitmap painting package would also do). Then select a new blank paint document. Some programs will ask what size document you want at this stage – *ClarisWorks* doesn’t.



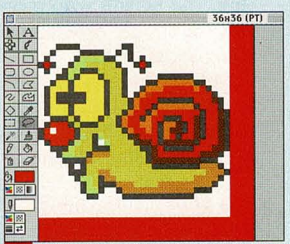
2 Select **Document** from the **Format** menu to define the document size. I would like a document 32 x 32 pixels in size, but the minimum that *ClarisWorks* enables is 36 x 36, so enter this and click **OK**.



3 The blank document is too small to see what’s going on, so using the pop-up menu in the bottom left corner, select the maximum magnification, which is 800%. It is now much easier to see what’s what.

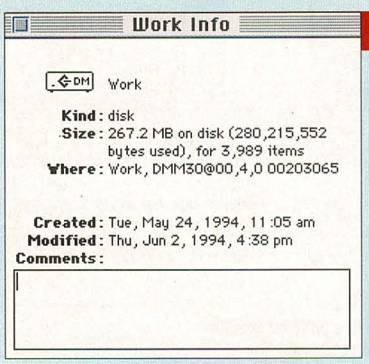


4 Because the document is four pixels too big in both directions, use the rectangle tool to fill those extra pixels with a solid colour. This now means that the white area is the correct size of 32 x 32 pixels.

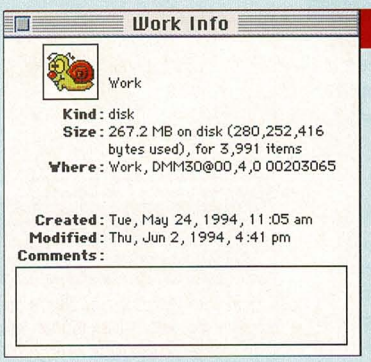


5 Using any of the paint tools, create your icon within the white area. If you make a mistake, use the eraser tool, or paint over it in white. This icon was created by MACFORMAT reader Alban-Jérôme Calcagno.

6 Now you must select your icon. Using the rectangular selection tool, draw a rectangle to encompass the 32 x 32 square, taking care not to select any of the red border. Now choose **Copy** from the **Edit** menu.


Work Info
Work
Kind: disk
Size: 267.2 MB on disk (280,215,552 bytes used), for 3,989 items
Where: Work, DMM30@00,4,0 00203065
Created: Tue, May 24, 1994, 11:05 am
Modified: Thu, Jun 2, 1994, 4:38 pm
Comments:

7 Return to the Desktop by going to the application menu and select **Finder**. Now find the file or folder that you want to give the icon to. Click once on it and select **Get Info** from the **File** menu.

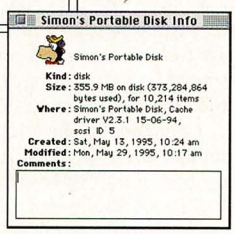

Work Info
Work
Kind: disk
Size: 267.2 MB on disk (280,252,416 bytes used), for 3,991 items
Where: Work, DMM30@00,4,0 00203065
Created: Tue, May 24, 1994, 11:05 am
Modified: Thu, Jun 2, 1994, 4:41 pm
Comments:

8 Click on the current icon, in the top left corner of the window, and a solid line appears around it. Now select **Paste** from the **Edit** menu, and your new icon should appear. If you want to get rid of your icon and return to the default one, select **Clear** or **Cut** from the **Edit** menu. **DS**

page you can see the Get Info boxes from another disk drive. The information contained here is the version number of the Apple driver. Some disk formatting software allows different information to be put there – in this case, someone has put their name. It won't hurt, but if you want to remove this information then you should use some third-party disk driver software such as *The Hard Disk Toolkit* or *Spot-On*. These are available from many distributors (including MacWarehouse and Softline) and cost about £90. Phone some of the advertisers in MACFORMAT for the best prices. **SC**

Simon's Duo Disk Info
Simon's Duo Disk
Kind: disk
Size: 103.2 MB on disk (108,304,384 bytes used), for 3,466 items
Where: Simon's Duo Disk, SCSI ID 0 (v7.3.5)
Created: Thu, Oct 22, 1992, 11:57 am
Modified: Mon, May 29, 1995, 9:57 am
Comments:

This is a **Get Info** box from an Apple hard disk drive, and contains extra info about the version of Apple HD SC Setup used (7.3.5).


Simon's Portable Disk Info
Simon's Portable Disk
Kind: disk
Size: 355.9 MB on disk (373,284,864 bytes used), for 10,214 items
Where: Simon's Portable Disk, Cache driver V2.3.1 15-06-94, scsi ID 5
Created: Sat, May 13, 1995, 10:24 am
Modified: Mon, May 29, 1995, 10:17 am
Comments:

This is a Get Info box from a non-Apple hard disk drive. There is information about the *Spot-On* drivers. See 'Hard luck'.

To DOS or not to DOS

HARDWARE

Q *I have a PowerMac 6100 with the DOS compatibility card. This machine is supposed to be DOS compatible but is unable to run* AutoCAD *as this package uses a dongle on a real PC which attaches to the parallel printer port. As the compatibility card does not have one of these, the software will not run. I phoned Apple and they said I should obtain a dongle-free US version. Do you know of a solution?*

Mr M Western
Exeter, Devon

A I cannot think of any solution to this problem except to get a US version. I suggest you approach the UK distributor of *AutoCAD* (Autodesk 01483 303322) and see if they can help. If not try calling the developer directly in the US (00 1 415 332 2344). Most developers are more than happy to help out in this situation.

In fairness to Apple, there are few packages that use dongles any more as the US government has regulations which prevent it from buying copy protected software. That's the reason the US version of *AutoCAD* does not use a dongle. However, this proves that the DOS compatibility card is not quite the same as having a complete PC next to your Mac. **SC**

Trouble to spare

VARIOUS

Q *1. I use your CD each month but find a lot of debris left behind in the System Folder from all the shareware I have browsed. Is there a utility which would track, notify, allow/deny, clean off or generally stop this happening?*
2. I bought Norton Utilities 3.1 *when I had my last Mac, but when I came to use the emergency disk with my PowerMac it wouldn't start up from it. Does this mean* Norton Utilities *is useless on a new PowerMac?*
3. Why does some software think an 8100/100 has a Floating Point Unit (FPU) and others don't? Is this just a question of waiting for software to catch up with hardware or what?
4. Why are applications so enormous on a PowerMac?

Tony Spalding
Tulse Hill, London

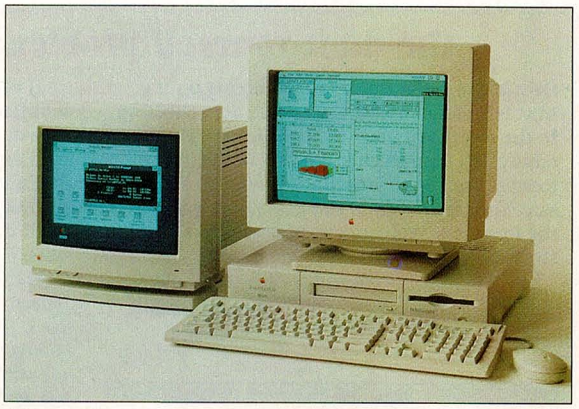
A 1. The best tool I know of for this is *File Buddy*, which has been on many of our CDs, the latest version on MACFORMAT 26. This application scans your Preferences folder and looks for files which are not owned by any application. It also includes functions such as looking for aliases which no longer point at files or folders. Alternatively, you could try a little utility called *PrefsCleaner* which was on the floppy disk of MACFORMAT 18.
2. New Macs and new System software are bound to cause trouble with startup disks, such as those found with *Norton* and *MacTools*. Recognising this, both programs enable you to create your own startup floppy disks. What they do is copy the System file from the Disk Tools disk (which came with your System software) onto a blank floppy, then copy the application from their emergency disk onto the same floppy. You now have a disk that will boot your Mac.

If your System software came on a CD, you have two options. You could boot your Mac from the CD, then insert the emergency floppy and run *Norton* from that. Alternatively, you can make a floppy Disk Tools disk (always a good idea anyway), by looking in the Disk Images folder on the CD and using *Disk Copy*.
3. First of all, let me say that the PowerMac 8100 does have a FPU, and all native programs, written specifically for PowerMacs, know that. The problem occurs with software designed for non PowerMac Macs.

Whether software thinks that your Mac has an FPU or not relates to how the PowerMac emulates a 680x0 Mac, the type of processor which was in all Macintoshes before the PowerPC was developed.

When Apple developed the PowerMac, it had a built-in emulator for the 680x0, but they had to decide which type of 680x0 to emulate. What they decided to do was emulate a version called the 68LC040, which does not have a built-in FPU. Why Apple decided to do this, is that they knew that if an application wants to perform a floating point operation it should ask part of the System, called SANE, to do it. This part of the System then looks to see if there is a floating point unit and if there is uses it. On a PowerMac, SANE will use the PowerPC's FPU. However, the problem is that some applications do not use SANE but instead try to use the floating point unit directly. This means that on a PowerMac some 680x0 applications which were not written to use SANE cannot find the floating point unit.

Software FPU is a program that tricks 68LC040 Macs into thinking they have an FPU. The shareware version doesn't support PowerMacs, but you can request a version that does by registering the program for $20. In the meantime, you can get native versions of the offending software, which may well solve your problem.
4. There are two possible reasons for applications being big on a PowerMac. First, the applications may be so-called 'fat' applications which contain code for both 680x0 Macs and PowerMacs. The second reason relates to the way the PowerPC works. The PowerPC chip is a Reduced Instruction Set Computing (RISC) chip, which means that there are fewer instructions than in a Complex Instruction Set Computing (CISC) like a 680x0 chip. As there are fewer types of instruc-



Apple has two DOS compatible Macs, versions of the 630 and 6100. However, they may not be entirely compatible! See 'To DOS or not to DOS'.

QUICKTIME TIP

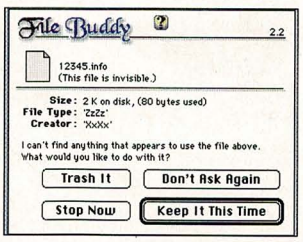
When playing a QuickTime movie, press **[return]** to start and stop it. Press the left and right arrow keys to move one frame forwards or backwards. Use the up and down arrow keys to increase or decrease the volume.

POWERBOOK TIP

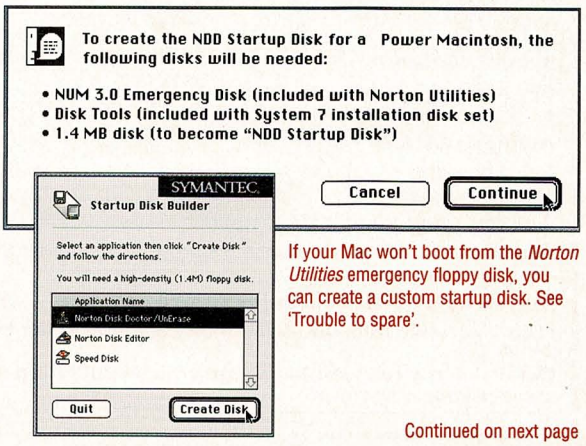
If you use one of the older PowerBooks and try using MIDI you may have problems. The answer is to turn AppleTalk on from the Chooser.

VIRTUAL TIP

Always turn virtual memory off when you don't need it, because it slows your Mac down, even when you aren't using the extra bit of RAM.


File Buddy
2.2
12345.info
(This file is invisible.)
Size: 2 K on disk, (80 bytes used)
File Type: 'ZzZz'
Creator: 'XxXx'
I can't find anything that appears to use the file above. What would you like to do with it?
Trash It
Don't Ask Again
Stop Now
Keep It This Time

Clean up your Preferences folder with *File Buddy* and save some precious disk space. See 'Trouble to spare'.

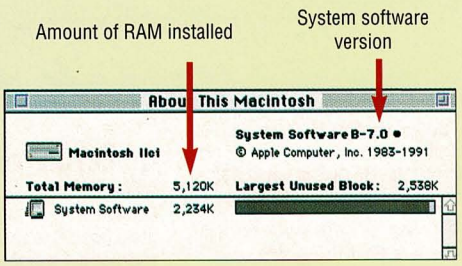

To create the NDD Startup Disk for a Power Macintosh, the following disks will be needed:
• NUM 3.0 Emergency Disk (included with Norton Utilities)
• Disk Tools (included with System 7 installation disk set)
• 1.4 MB disk (to become "NDD Startup Disk")
Cancel
Continue
SYMANTEC.
Startup Disk Builder
Select an application then click "Create Disk" and follow the directions.
You will need a high-density (1.4M) floppy disk.
Application Name
Norton Disk Doctor/UnErase
Norton Disk Editor
Speed Disk
Quit
Create Disk

If your Mac won't boot from the *Norton Utilities* emergency floppy disk, you can create a custom startup disk. See 'Trouble to spare'.

Continued on next page

The do-it-yourself problem solving guide...

One of the main causes of problems on the Mac is Extensions or Control Panels clashing in the depths of your System Folder. Fortunately, it's easy to check if this is the case. Restart your Mac and hold down the [shift] key. You can let go of the key when you see the message 'Welcome to Macintosh. Extensions off'.



If everything now works, then the problem lies in your System Folder. The only way to work out which item is the culprit is by trial and error. Remove a few Extensions and or Control Panels, then restart your Mac without holding [shift] this time. Keep going until the problem no longer occurs, and you have located the offending software.

If this doesn't work, another common solution is to rebuild your Desktop. Start up your Mac with [command] and [option] held down. You will get a message asking if you want to rebuild the Desktop. Click OK and see if this solves your problem.

If the problem persists then use the form below to ask our experts. We'll need to know a few facts about your Mac, so when you're in the Finder, select About This Macintosh from the Apple Menu. The picture (left) shows what we'll need to know.

'I think I'll have to lose some Extensions – by the time it's booted up, it's time to go home!'

HIGHLIGHT TIP

In most word processors, double clicking highlights a word, triple clicking highlights a line, and quadruple clicking highlights a paragraph. After clicking, you can hold down the mouse button and drag to highlight further text.

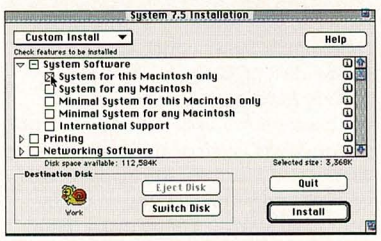
tions, it is often the case that it takes more instructions to perform a task on a PowerMac than on 680x0. Therefore, PowerMac applications tend to be larger than 680x0 applications. **SC**

Font fiddle

FONTS

Q *I had a problem with freezing on all of my major applications, which turned out to be a corrupted font (apparently). I replaced the font and everything appeared to be okay. However, if I try to open any font listed after the top one a message box appears saying the font is damaged. Also the System file says it is damaged and will not open. If I take the fonts out, the System is okay. I tried replacing the System, but the same thing happened. If I take out all of the fonts and replace them one at a time, it still happens with all of the fonts – even with just two fonts in the folder. I have tried replacing the System, the fonts, the Finder and the Finder Preferences file. What's wrong?*

Tony Green
Deeping St James



When all else fails, you may need to re-install the System file. See 'Font fiddle'.

A Tricky blighter, Johnny Font. And when one goes rogue, you've got real trouble. The problem is that fonts are System resources, so if one does go screwy, it may damage the System file too. The first thing to do is delete your current System file and Finder, and replace them with fresh ones, as described in the 'Uncovering the X-Files' feature in MACFORMAT 27 – back copies are available from page 129. If that doesn't work, take all your current fonts out of the Fonts folder and place them in the Wastebasket, then restart. Now re-install all your fonts from the original disks. **JC**

If you send in a question for the MACFORMAT experts to solve, please fill in and include this form (or a copy of it). And please make sure that you include all the relevant details – version numbers of software and so on – so that we have the best chance of helping you. Send your form and question to: **Mac Answers, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW. Or fax it to us on 01225 446019.**

Name .....

Address .....

.....

.....

Your Mac
(For example, Performa 200, IIfx, PowerBook 145):

.....

System version
(see About this Macintosh screenshot above): .....

Amount of RAM
(see About this Macintosh screenshot above): .....

Are you using Virtual Memory? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Do you have 32-bit addressing turned on? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Details of any relevant hardware which could help us to answer your question:

.....

.....

Now, use this space to describe your problem or question.

Include as much relevant information as possible.
Please continue on a separate sheet if necessary.

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Graphically challenged

If you want to draw, paint or air-brush on screen, a graphics tablet is what you need. Alistair Dabbs assesses the whole range to find the Michelangelo.

The mouse is a pointing device. And to many graphic artists, that's all it's good for: pointing. Try and use it for drawing, painting and fine photo retouching, and you could soon be pointing a very different device at your temple. As your hand pulls in one direction, the mouse skips around in another, providing almost no intuitive or tactile response.

Most people draw with pens, pencils, crayons and paintbrushes, not with something that looks like a pumice stone. What you want is a pen. Sure, the Mac market has seen a few pen-shaped mice with tiny rollerballs at the end, but these are, at best, novelty items for Christmas stockings. What you really need is a graphics tablet with a stylus.

Graphics tablets were originally produced for the stuffy CAD/CAM market to meet the demand for precise and highly reliable pointing devices when most people only had a lonely keyboard. While a mouse is usually mechanical, picking up directional information from the sometimes erratic actions of a rubber ball, a graphics tablet is fundamentally a mesh of wires encased in plastic which track the proximity and motion of an appropriate pointing device passed over it, generally known as a 'puck'.

A puck looks like a mouse with a cross-hair stuck on the end, but there the similarity ends. Because the puck interacts with the digitised mesh beneath, the resolution and accuracy of the graphic tablet combination goes way beyond even the best mice around. Pucks are decked out in buttons, all of which are programmable or have special functions depending on the CAD/CAM program you're running. They are also 'absolute' rather than 'relative' in action. That is, the position of the puck on the tablet is directly related to the cursor position on-screen. Pick it up and place it down elsewhere on the tablet, and the cursor jumps to that position – quite unlike a mouse, which would let you stay on the same spot and move in relation to it.

All but one of the graphics tablets tested here can be supplied with pucks of various designs. But if you're seriously into graphic art and photo editing, ditch the puck in favour of a stylus (remembering to specify which you want when you buy). Whether connected by a wire to the tablet or completely cordless, a stylus or pen is a much more intuitive way to work. Better still, specialist pens for graphic artists are often the standard offering, providing pressure-sensitive nibs for that extra tactile feedback. The harder you press down, the firmer or darker or wider the stroke appears on-screen. There are plenty of graphic applications around now that support pressure-sensitive pens, some of which may come bundled with the tablets, most notably the power twins *Fractal Painter 3.0* (£440.63, contact Computers Unlimited on 0181 200 8282 for details) and *Adobe Photoshop 3.0* (£737.90, contact Principal on 01706 832000).

Another positive feature of a graphics tablet is that the digital mesh base can detect the presence of its stylus or puck usually up to half an inch away from the surface. This means you can place original artwork over the tablet (usually slipped under a rugged plastic tracing sheet fitted to the surface) and trace over it manually. Some tablets will also let you program in hotspots, mapped out to a template – slip the template over the tablet and you've got instant access to macros and menus with the minimum of movement. Other tablets come with hotspot buttons for macros and general configuration built into the hardware itself.

There are negative features, too. Quite apart from the cost compared with a nice new mouse, there are space issues to be overcome: it's not easy to replace a mouse mat with a hulking great plastic slab without some re-organistion of your workstation. Note, then, that graphics tablets come in all shapes and sizes according to purpose, from handheld A6 scribblers to flagstone-dwarfing A2s. To give everyone a fair crack, we tried to confine the following tests to highly usable A4 square models (typically 12-inch x 12-inch), although we broke our own rules as you'll see.

See a graphics tablet in action on the CD! Details on page 92.

CAD/CAM

CAD stands for computer aided design, while CAM stands for computer aided modelling. So the CAD/CAM market means an industrial/technological design market which uses computers to help design its products.

Summagraphics SummaSketch III

Hailed as 'the world's best selling graphics tablet', the SummaSketch range is looking a little long in the tooth against its less popular competitors. This model does not support cordless input devices, so it would be wrong to compare it with the rest on this basis. But for what ought to be a simple ADB tablet, the setup is remarkably complicated.

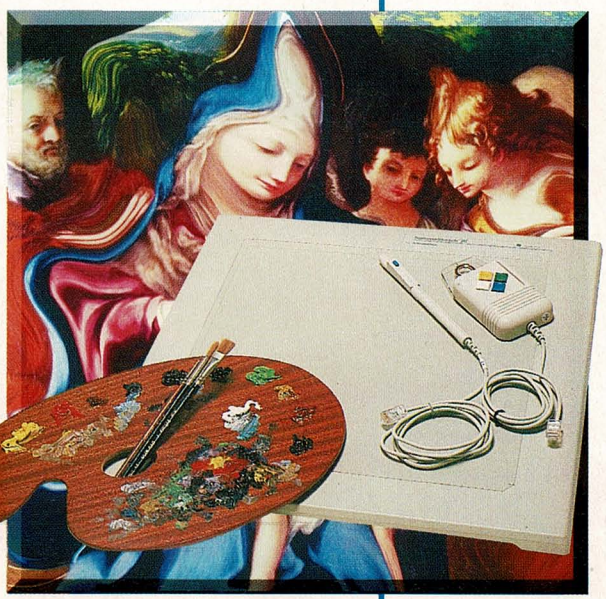
Instead of ordinary ADB or serial connectors, the tablet has phone-type sockets. A phone-type plug goes in the I/O socket, leading to a 25-pin D connector; this connector's plugged into a female 25-pin D connector socket attached to another cable, leading to another phone-type plug. This plug goes into a 105x80mm ADB interface box; at the other end of the box goes one end of an ADB cable, the other end plugging into any ADB port on your Mac. A 12V power cable plugs into one of the D connectors halfway down the chain.

Then it's time to plug in the stylus to the other phone-type socket. By the time I'd finished the installation, my desk was swimming in cables. The lack of a pen holder led to more than a few tangles after resting the stylus on the table between sessions.

Getting the active area positioned in relation to the screen is a bit fiddly, and there's no menu strip to recall user presets. The tablet is slimmer than some, with two swing-out prop legs; otherwise, it's mostly featureless, apart from a hidden on/off button and a single power-on LED which flashes at you whenever the stylus is moved out of proximity.

The stylus works like a pen but looks strangely squared off on one side. It's actually highly responsive with a pointed tip which is excellent for tracing. Double-tapping and using the stylus button as a mouse button is easier on this model than on most other styluses tested. The puck supplied is surprisingly unassuming but not cheap, and the buttons give a loud, wholesome clunk when depressed. Most mysterious were a set of velcro crescents, listed in the handbook's inventory but not otherwise explained.

The SummaSketch is the cheapest of these tablets, with some good features and it isn't hard to use, but, be warned, it's a complete pig to install.



SUMMASKETCH III

Price: £351.53.
For more details contact Summagraphics on 01734 567115.

MACFORMAT RATING 64%

Calcomp DrawingSlate II

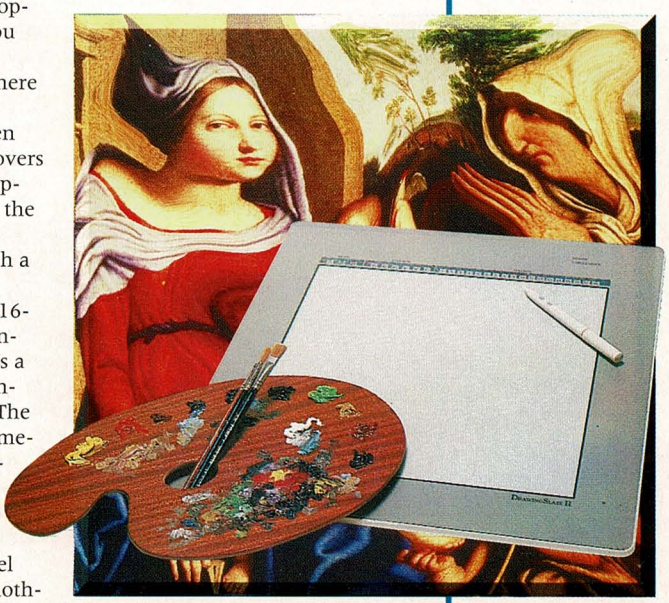
If we had a flatness award, the DrawingSlate would win the trophy, finish off the champagne and sleep with the judges. Just 8mm thick from head to foot, it's perfectly designed for hugging angular draughting desks or resting against the edge of a regular table. There are no legs or props.

This is a purpose-built tablet for Mac users, down to the single cable to ADB plug with 'through' socket trailing off from it. The cable is almost disconcertingly thin but no external power supply is required. There's no on/off switch, but two LEDs indicate power on and stylus proximity. The only way to stop the latter from flashing is to leave the stylus lying on top of the tablet. Unfortunately, this would prevent the stylus from going into sleep mode when unused, draining its batteries.

The DrawingSlate has a Mac-specific menu strip across the top, with button icons in spanky 3D. A 'toolbox' section provides buttons for common Mac actions such as Open, Cut, Paste, Undo and so on, complete with keyboard reminder – **[command] O**, **[command] C**, etc. Topping even the Quora Cordless, you have 18 user-definable function/macro buttons to program, and there are three more buttons for fast switching between mouse and pen modes. A tracing overlay sheet covers the entire tablet, with a texture approaching but not quite reaching the Quora's 'paper-smooth' surface.

The Calcomp doesn't come with a puck, but you can get a standard cordless four-button device, or a 16-button alternative. The stylus is included. Needing four batteries, it's a bit top-heavy, but thoroughly pen-like with only a slight nib rattle. The two-button device supplied is immediately responsive, for a pressure-sensitive stylus, but a little difficult to control at mid-pressure levels. The pressure levels can be customised with the Control Panel driver, but this conflicted with another System Extension I couldn't locate, causing several crashes before I gave up. All other aspects of customisation within the Control Panel were compatible with the System.

The DrawingSlate is an excellent product all round, very good value for money, and really easy to install.



CALCOMP DRAWINGSLATE

Price: £411.25.
For more details contact Art Systems on 0115 943 1404.

MACFORMAT RATING 83%

Continued on next page

Quora Cordless A4

Compared to the hulk of the Kurta (below), the Quora Cordless looks positively skinny. It's virtually flat, with just a raised box area at the top end to house the main electronics, and two swing-down legs to prop up the rear. Although the raised box is cased in thin plastic, the main body is so slim and rock solid, you could use it in a guillotine. It's heavy enough.

One cable leaves the tablet and leads to a PC serial plug. This hooks straight into a Mac serial converter before going into your modem port, with a 12V power supply plugging into the serial jack along the way. This setup leaves you with the minimum of cabling on your desktop.

The tablet design is unfussy without cutting corners. The Quora's menu strip is tastefully restrained with just a row of buttons printed across the top, providing an unusual 13 buttons for function/macros, two for tablet-to-screen active area switching and one setup button. You can also skip between major tablet emulations by tapping on one of four user preference buttons. There's a solitary LED to indicate power on, with no on/off button. There's also no built-in stylus holder, but the ridged raised box can be used instead to hold your stylus horizontally.

The stylus is shaped like a medium oil paintbrush. It's light but solid, with no hint of a rattle at the nib and no batteries for you to forget to buy. The default setup required a much more forceful tap than I was accustomed to, but in some cases this actually provided better tactile feedback when using pressure effects. In contrast, the puck supplied was disappointing. It felt too small and cheap, with loose buttons.

The review tablet had Quora's smooth 'paper-feel' surface rather than the typical rough overlay tracing sheet (you can choose with or without), which was a rather special feature. Sweeping gestures were completely smooth and natural, with a satisfying thud sound with every tap of the pen. For straight painting work, the Quora was a joy to use.

The Quora is slightly easier to use than the Calcomp, and almost as simple to install, but the Calcomp still has the edge for price and features.

QUORA CORDLESS A4

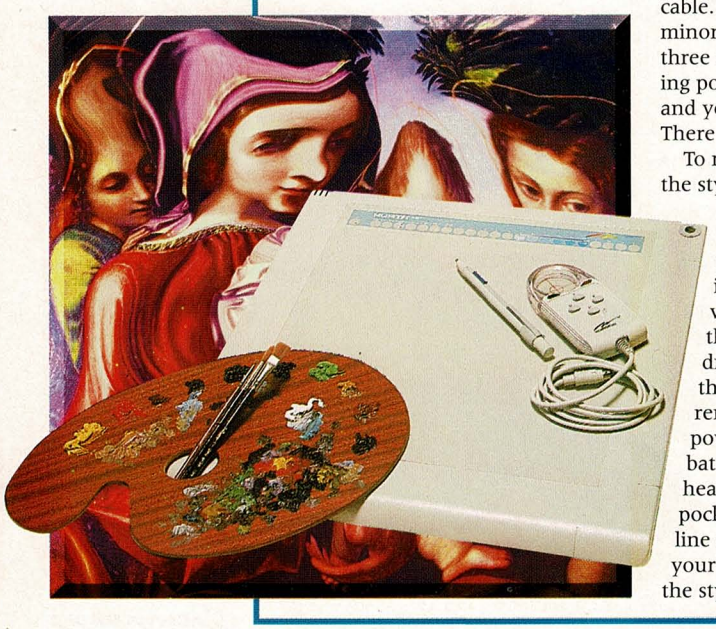
Price: £464.13.
For more details contact TDS CAD-Graphics on 01254 676921.

MACFORMAT RATING 78%

Kurta XGT/ADB 12C

Bring on the Kurta, a hulking mother of a tablet that feels much lighter than it looks. Part of this bulk is due to its slanted base, making legs and other tilting props unnecessary, with four wide rubber feet glueing the tablet to your tabletop.

The versatile Kurta XGT doesn't need a power supply – it can plug directly into any ADB port. Even better, the Kurta's ADB jack gives you a 'through' socket, so you don't need a free port on your Mac. Our only quibble is that you have to make room for an ADB converter assembly box a third of the way down the cable. But to distract you from this minor irritation, the tablet provides three traffic-light LEDs: red indicating power, green for pen proximity and yellow for pressure applied. There is no power on/off switch.



To match the bulky-looking tablet, the stylus is a 70mm long, 13mm thick beastie. It's a bit rattly, but this isn't unusual with a pressure-sensitive stylus. What is unusual, though, is the provision of two buttons rather than one, plus some clever drivers that enable you to use these buttons to 'lock' to a current pressure level. Cordless and powered by three silver oxide 393 batteries, the pen is slightly top-heavy but not uncomfortable. A pocket clip is provided as a second line of defence against misplacing your pen – if you don't want to use the stylus holder built into the tablet. Kurta also generously include five spare nibs for the stylus.

You can customise the menu strip across the top of the tablet with more than the usual function key actions. One set of buttons enables you to fast-switch scaling mode in relation to the monitor, and you can even preset pressure levels to apply independently of the pressure stylus. This is a really nice touch that enables you to maintain consistency with the pen, and even busk pressure effects when you're using the puck. And the Kurta puck is one of the most pleasant to use of all those tested, despite its rather understated looks.

You may find the Kurta too bulky for your taste, but this is great tablet, easily matching the Calcomp. It's just a shame the price is rather steep.

KURTA XGT/ADB 12C

Price: £625.13.
For more details contact Art Systems on 0115 943 1404.

MACFORMAT RATING 79%

Wacom UD-1212MK

This set is made up of the UD-1212R A4 tablet and the choice of a four-button puck or a pressure-sensitive stylus. The stylus is cordless and battery-less, and was certainly the most unusual of those we looked at in that it looks just like a biro, betrayed only by a little violet button on the side. You also get a nib-extractor (no other supplier was quite so thoughtful) and a small set of spare nibs in case you break one or wear it down with vicious usage.

A basic pen-stand is supplied separately from the tablet, although no-one's likely to use it. This is a shame, since most cordless pens, especially biro lookalikes, go missing very quickly – and if I was feeling tense, I could accidentally snap this stylus in two with one hand quite easily. So you'd be well advised to buy an extra stylus from the start.

The tablet is mains-powered, with a 12V power lead slotting neatly into the serial port plug. This means that the only wire you'll see on your desk is the one attached to the tablet itself. Using one of your precious serial ports isn't unusual with graphics tablets, but it means you'll have to unplug your modem while you draw.

At a little over 2kg, this is one of the lighter 12-inch tablets around, and it's relatively slim too. Power can be cut with a reassuring red on/off button, and a status LED shows if the tablet is powered up (orange) and whether the stylus is in proximity (green). There's a menu strip of buttons across the top edge for changing pressure and other settings without having to go to the Control Panel driver every time, plus programmable 12 function/macro buttons.

The snap-on legs for the underneath are rather low-tech, but otherwise the Wacom has a solid, quality feel about it. Tip: rest the back of the tablet on the edge of your desk with the front on your lap. The Wacom is lovely to work with in this position, and the pen feels totally natural.

The Wacom is easy to use, there are some great features and installation is fairly simple, but £700 is just too high a price tag.

WIN YOUR OWN WACOM TABLET! SEE PAGE 146

WACOM UD-1212MK

Price: £703.83.
For more details contact Computers Unlimited on 0181 200 8282 or Letraset on 0171 928 7551.

MACFORMAT RATING 76%

MacHandwriter

In a group test of A4 graphics tablets, this is where we start cheating. The MacHandwriter provides an active area halfway between A4 and A5, an unusual size, but not too small for graphics purposes.

Branded CIC but with Calcomp's manufacturer stamp on the back, the MacHandwriter is similar to the Calcomp DrawingSlate II in that it's completely flat and runs straight from an ADB port. A5-sized graphic tablets are not uncommon, with Wacom's ArtPad being one of the most popular, but this is the only tablet on the market you might mistake for a mouse mat.

The stylus supplied in the basic setup is a standard Calcomp one-button device, but you do have the option to upgrade to a pressure-sensitive version – the tablet fully supports pressure devices. Because the tablet is so thin, it's not suitable for long bouts of artistic output just sitting on your lap or in your hands, but it's just about perfect as a table-top pad. And it takes up no more room on your desk than your mouse mat, so you could use it as one when you don't need the stylus.

Another feature of the MacHandwriter is that you can use the stylus to perform the equivalent of key commands. For example, if you use the stylus to click on a file and then draw the letter 'O', you open that file – it's the equivalent of **[command] O**. The advantage of being able to do this is that you don't need to keep transferring from the stylus to the keyboard. It's a much more relaxed way of working if you can draw, write and edit with one device.

Unfortunately, the bundled handwriting recognition software isn't anything to write home about (a good example of what you can't do with it), but the pressure-sensitive version is a great product for the spatially challenged artist.

The MacHandwriter even has a numeric keypad-style toolbox, so you can enter numbers into a spreadsheet with the stylus if you need to.

Although it's the most user friendly of the tablets tested here and has very good features, the MacHandwriter is expensive considering it's not even A4 size.

MACHAND-WRITER

Price: £410. – £468.83 with pressure sensitive pen.
For more details contact Softline on 0181 401 1234.

MACFORMAT RATING 78%

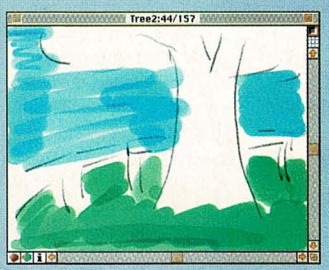
Continued on next page

See how it's done in the QuickTime movie on this month's CD-ROM!

THE ONE MINUTE PAINTER CHALLENGE

Using *Painter 3.0* and a graphics tablet, I created this 'watercolour' in around a minute, a task that would have taken more like five minutes with a mouse. Using a tablet, sweeping lines felt more natural and spatial awareness was easier.

The starting point for the landscape – I just made a very quick outline sketch using a 2B pencil.



On goes the sky and grass. Not much time for detail, or for much variance in colour – just slap it on.

Okay, the tree trunk needs a little more variety in colour to make it the focus of the picture. Simple.

I was never patient enough for little things like leaves. Still, I almost completed this in about a minute and a quarter.

ADB

This stands for Apple Desktop Bus, the connection between your Mac, your mouse and your keyboard. The ADB port is the point where your mouse plugs into your keyboard or your keyboard plugs into your Mac.

The Verdict

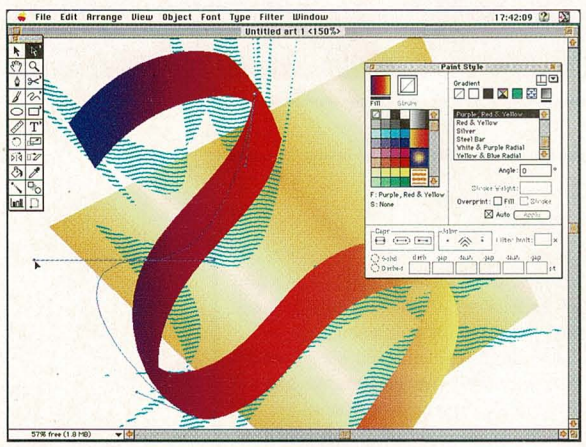
When all the products are in front of you, choosing a favourite is easy. But the choice is subjective, depending on your Mac setup, desk space and which stylus you prefer: large or small, light or heavy, one button or three?

In the first instance, if your Mac is hooked up to a LocalTalk printer and an external modem, you'll want to avoid the serial port devices like the Wacom and the Quora. In many cases the printer port is unusable anyway: you'll most often be forced to use the modem port, unless you fancy spending a sunny weekend trying to get your Chooser devices to release their serial grip. Alternatively, an ADB device guarantees nothing, as the SummaSketch proved, with wires trailing all over the place. For the artist, a lot is to be said for hardware that's as simple as the graphics software is complex.

Of the tablets tested here, I preferred the Quora for its smooth surface, the Wacom for comfort, the Kurta for its nifty menu strip and the Calcomp for being so completely different from the rest. All the models tested were highly usable for graphic art in conjuction with pressure pens.

Before you make any decisions, note that market-leaders Wacom and Summagraphics are redesigning their product lines: while the products reviewed here will be around for some time yet, you may prefer one of the new releases. Earlier this year, Wacom launched a series of specialist UltraPens of different sizes and thicknesses (some taking real lead or ink cartridges) and even an UltraPen Eraser adding pressure-sensitive erasing to the existing pressure pen facility. Wacom have also just announced a new tablet lineup of UltraPads which, although too late to fit in our review, can detect not only pressure but also the angle at which it's applied. Summagraphics, meanwhile, are about to release a 6x8in cordless device for artists this autumn, and the remarkable Summaflex, an 18x24-inch tablet that you can roll up and stick on the shelf when you're not using it.

Such product spring cleaning should mean some dramatic price cuts in existing products before the summer's out, as suppliers make room for new models. This is a good time to assign your mouse to the skirting board and start taking the tablets. **MF**



Using a stylus to create and edit vector graphics with Bézier curves is no more difficult, and even quicker, than using a mouse.

A sunset photo turned into a comet crash-dive. This kind of smudging and cloning is a cinch.

GRAPHICS TABLETS AT A GLANCE

	SummaSketch III	Calcomp DrawingSlate II	Quora Cordless A4	Kurta XGT/ ADB 12C	Wacom UD-1212MK	MacHandwriter
Tablet size (mm)	415x415x40	415x445x8	400x450x25	420x450x80	405x415x35	280x247x5
Active area (mm)	305x305	304x304	307x307	304x304	303x303	228x153
Weight (kg)	2.5	1.75	3.3	2.5	2.25	0.5
Puck	Four-button with cord	Four-button, cordless	Dome Cursor cordless, four-button	XGT 4TBN four-button with cord	UC-420 four-button, with cord	None
Stylus	One button with cord, pressure sensitive	Two-button, cordless, pressure sensitive, batteries	Designer Pressure Pen cordless	Artist Pen cordless, two-button, pressure sensitive, batteries	UP-201 cordless, one-button, pressure sensitive	One button, cordless, batteries
Other models	A3	A5, A3	A3, A2	A5, A3	A6, A5, A3	None
Price	£351.33	£411.15	£464.13	£652.13	£703.83	£410/£468.83 with pressure-sensitive pen
Contact	Summagraphics 01734 567115	Art Systems 0115 943 1404	TDS CAD-Graphics 01254 676921	Art Systems 0115 943 1404	Computers Unlimited 0181 200 8282 or Letraset 0171 928 7551	Softline 0181 401 1234
MACFORMAT rating	64%	83%	78%	79%	76%	78%

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Power Mac 8100/80 8/500 & 17" Trinitron Monitor	2405
Power Mac 8100/110 16/2000 CD & 20" Trinitron Monitor	5105

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		1 yr	2 yr	3 yr
Group 1	StyleWriters, ImageWriters	15	55	92
Group 2	LC & Performa 400s, Scanners, CD-ROM Drives, Monitors up to 16"	15	84	126
Group 3	LC, Performa & Quadra 600s, Powerbooks, Duos, Colour StyleWriters Monitors over 16", Quicktake 100, LaserWriters	15	99	165
Group 4	Quadra 8/900s, Workgroup Servers, all Power Mac	15	135	220

APPLE MACINTOSH HARDWARE & BUNDLES

Performa 630 4/500 & keyboard	667	Performa 630 8/250 CD & keyboard	875
Performa 630 8/250 CD Plus & keyboard	895		

Mac Bundle	RAM	HD	Bundle includes	
Performa 630 8/350 CD	8	350	V-in-TV & keyboard	1049
Performa 630 8/350 CD Plus	8	350	V-in-TV & keyboard	1181
Performa 630 4/500	4	250	Performa 14" display & keyboard	852
Performa 630 8/500 CD	8	500	14" Trinitron display & keyboard	935
Performa 630 8/500 CD Plus	8	500	14" Trinitron display & keyboard	976
Performa 630 4/500	4	250	Multiscan 15" display & keyboard	933
Performa 630 8/500 CD	8	250	Multiscan 15" display & keyboard	974
Performa 630 8/500 CD Plus	8	250	Multiscan 15" display & keyboard	1017
Performa 630 8/350 CD	8	350	V-in-TV, Multiscan 15" display & keyboard	1177
Performa 630 8/350 CD Plus	8	350	V-in-TV, Multiscan 15" display & keyboard	1220
Performa 630 12/500 CD DOS	12	500	DOS Compatibility card, DOS 6.22, Windows 3.11 & kb	1249

Performa 630 Video In card	85	Performa 630 Video In & TV Tuner card	215
Performa 630 Presentation kit (Video Out)	199	Power Mac Upgrade Card	545

POWER PC PERFORMA HARDWARE & BUNDLES

Performa 6200 8/500 CD & keyboard	979	Performa 5200 8/500 CD & keyboard	1187
Performa 5200 8/500 CD Plus & keyboard	1248	Performa 5200 12/500 CD Plus V-in-TV & kb	1450

Mac Bundle	RAM	HD	Bundle includes	
Performa 6200 8/500 CD	8	500	Performa 14" display & keyboard	1117
Performa 6200 8/500 CD Plus	8	500	Multiscan 15" display & keyboard	1312
Performa 6200 8/500 CD DS Plus	8	500	14" Trinitron display, Design Speakers & keyboard	1209
Performa 6200 12/500 CD Plus	12	500	V-in-TV, Multiscan 15" display & keyboard	1525
Performa 6200 12/500 CD DS Plus	12	500	V-in-TV, 14" Trinitron display, Design Speakers & kb	1404

APPLE MACINTOSH POWERBOOKS

	RAM	HD	CPU	Screen	
Powerbook 150	4	250	33MHz 030	9.5" 4 GS PM	699
Powerbook 150 & GV Bronze Modem	4	250	33MHz 030	9.5" 4 GS PM	771
Powerbook 150 & GV Gold Modem	4	250	33MHz 030	9.5" 4 GS PM	876
Powerbook 150 & GV Mercury Modem	4	250	33MHz 030	9.5" 4 GS PM	944
Powerbook 520	4	240	50/25Mhz LC040	9.5" 256 PM	1135
Powerbook 520C	4	240	50/25Mhz LC040	9.5" 256 PM	1670
Powerbook 520C EM	12	320	50/25Mhz LC040	9.5" 256 PM	2168
Powerbook 520C EM & case & Teleadaptor	12	320	50/25Mhz LC040	9.5" 256 PM	2203
Powerbook 540C	4	320	66/33Mhz LC040	9.5" 256 or 32k AM	2656
Powerbook 540C EM	12	500	66/33Mhz LC040	9.5" 265 or 32k AM	2965
Powerbook 540C EM & case & Teleadaptor	12	500	66/33Mhz LC040	9.5" 265 or 32k AM	3031
Powerbook Duo 280 EM	12	200	66/33Mhz LC040	9" 16GS AM	2010
Powerbook Duo 280C	4	500	66/33Mhz LC040	8.4" 256 or 32k AM	1969
Powerbook Duo 280C EM	12	500	66/33Mhz LC040	8.4" 256 or 32k AM	2315

Key: EM = Express Modem, GS = Greyscale, GV = Global Village, PM = Passive Matrix, AM = Active Matrix

Powerbook DuoDock II	660	Powerbook Duo MiniDock	280
Powerbook PCMCIA Expansion Module	110	Powerbook Duo Rechargeable Type III Battery	55
Powerbook Type II/Type III battery	85	Powerbook Duo Floppy Adaptor	82
Powerbook External 1.44Mb drive	95	Powerbook 1xx AC Adaptor	38
Powerbook 500 AC Adaptor	95	Powerbook Duo AC Adaptor	45
Powerbook Standard Carry Case	20	Powerbook Business/Designer Carry Case	40

MEMORY

	1Mb	2Mb	4Mb	8Mb	16Mb	32Mb
Classic, Mac II, Q700 30 pin	55		123	255	449	
Quadra, PMac, LCIII, 475, 630		59	90	185	355	679
Quadra 660AV, 800, 840AV			150	280	349	718
Powerbook 520, 520c, 540, 540c			130	265	449	
			4Mb	6Mb	8Mb	10Mb
Powerbook 140, 145B, 170			108	161		
Powerbook 160, 165, 180			117	174	231	307
Powerbook 165C, 180C			130	180	230	240
Powerbook 150			152		285	
	1Mb	2Mb	4Mb	6Mb	8Mb	16Mb
Personal Laserwriter 320		82		229		
Laserwriter Select 300/310	65		165			
Laserwriter 16/600			145		260	520
Laserwriter Pro 630			150			
Dimm Memory			**8Mb**	**16Mb**	**32Mb**	**64Mb**
			280	555	906	1787
Video RAM		**256k**	15	**512k**	25	

PSION SERIES 3

Series 3a 256k	175	Series 3a 512k	199
Series 3a 1Mb	249	Series 3a 2Mb	299
Series 3S 256k	129	PC Comms Link	49
Mac Comms Link	55	Mains Adaptor	12
Parallel Cable	23	Leather Wallet	19
Fax Modem	159	128k Flash SSD	27
128k RAM SSD	37	256k Flash SSD	40
512k RAM SSD	89	512k Flash SSD	65
1Mb RAM SSD	189	1Mb Flash SSD	89
2Mb Flash SSD	139	4Mb Flash SSD	255
3Flight Manager	58	Psion Money	40
3Base	24	3Flight Manager	58
Agenda 3 Win	59	Agenda Link 3a	35
Data Deluxe	49	Datavision	49
Finance Pack 3a	50	Games 3a only	34
Spellcheck/Thesaurus	29	Spreadsheet	24
WinLink	23	Widget Tools	42

APPLE HANDHELDS

Message Pad 110	325	Message Pad 120	395
Connectivity Kit Mac	55	Fax Modem card	80
Print Pack	45	Mains Adaptor	18
1Mb Storage card	60	2Mb Storage card	110
4Mb Storage card	200	NICAD Battery Pack	16
Leather Carry case	40	Recharger & Mains	54
SOFTWARE			
GoFigure	25	PocketCall	65
ExpensePlus	38	Notion List Manager	30
Jig Saw	16	FilePad	75
TapWorks	54	Newton Utilities	23
PCMCIA SOFTWARE			
Fodors 94 Travel Mgr	23	Berlitz Interpreter	65
Time Out Guide	38	Newton Enh Pack	90

ACCESSORIES

Design Keyboard	74	Extended Keyboard	128
Adjustable Keyboard	149	Desktop II Mouse	35
PlainTalk Microphone	20	Design Speakers II	46
MIDI Interface	53	Security Kit	34

CD-ROM DRIVES

APPLE			
CD300e+	172	CD600I	Call
CD600e	Call		
D2			
2.4x External	170		
NEC			
3xp+	245	6xe internal SCSI	240
3xp/4e Mac software	31	Dual Speed Ext Kit	115
PIONEER			
DRM-602X 2x 6 disc	399	DRM-604X 4x 6 disc	865
TOSHIBA			
XM5201S 3.4x	195	XM3601S 4.4x	299
XM3501S 4x	325		

HARD DISKS

Bracketed figure is nominal capacity in Mb.

CONNER			
CFA540S (540)	199	CFA1060S (1.06Gb)	325
MICROPOLIS			
2217 (1.7Gb)	585	4221AV (2.1Gb)	696
3243AV (4Gb)	1065	1991AV (9.1Gb)	1850
QUANTUM			
TR420S	106	TR850S	170
FB540S	119	FB1080S	272
SEAGATE			
ST31230N (1Gb)	332	ST32550N (2.1Gb)	701
ST15230N (4Gb)	863	ST410800N (9Gb)	1776
STORAGE OPTIONS			
500A	261	1000P	489

Compact, external hard drives for desk top use.

STORAGE OPTIONS
- SCSI - 2
- Fully packaged Including software & cable
- 48 hr. FREE swap-out
- Seagate drives

1Gb 9/10.5 msec £440
2Gb 9/10.5 msec £806
4Gb 8/9 msec £1373

EXTERNAL CASED HARD DISKS
Add together the price of the disk and case. Formatting, fitting and ID setting is free of charge.

EXTERNAL CASES

3.5" Single Drive	60	5.25" Half Height	70
5.25" Full Height	120	5.25" Full Height x2	190
All with internal PSU			

CARRY CASES

Universal Notebook	44	Business Traveller	149
Notepac black	26	Notepac green	26
Premier Leather case	107	Fabric Premier	75

FolioPac 3 Specifically designed for your notebook computer **£35**

TARGUS

LASERS

APPLE			
LW 300	409	LW 320	595
LW Select 360	949	LW Pro 630	1180
LW 16/600PS	1505	LW 16/600PS & fax	1540
LW 16/600PS	1599	LW Colour PS	4479
BROTHER			
HL-10PS	1179	HL-10DPS	1299
DIGITAL			
DECLaser Pro 5100	1089	DECLaser Pro 660	1170
DECLaser 3500	1495	DECLaser Pro 1200	2290
HEWLETT PACKARD			
LaserJet 5MP	695	LaserJet 4M+	1255
LaserJet 4MV	1969	LaserJet 4SiMX	2927
LaserJet Colour	4199		
HEWLETT PACKARD SUPPORT PACKS			
LaserJet 5MP	695	LaserJet 4M+	1255
LaserJet 4MV	1969	LaserJet 4SiMX	2927
LaserJet Colour	4199		

ORIGINAL HP LASER MEMORY UPGRADES

Printer	1Mb	2Mb	4Mb	8Mb
4M/4SiMX/1200/PJ	69	119	189	329
5MP/4M+/4MV/Colour	69	119	167	329
4ML	59	-	-	-

TEXAS INSTRUMENTS			
MWriter PS23	475	ML 600 2Mb	545
ML 600 Plus 4Mb	699	ML Pro 600 23 Font	775
ML Pro 600 65 Font	949	Pro E	995
Power Pro 600	1025		

PRINTERS

APPLE			
StyleWriter 1200	188	StyleWriter Portable	209
StyleWriter 2200	260	Colour SWriter 2400	355
EPSON			
Stylus Colour	332		
FARGO			
Primera Pro	1299	Picturra 310	3420
HEWLETT PACKARD			
SPECIAL DeskWriter 310 £126			
DeskWriter 320	165	DW 320 & ASF	177
DeskWriter 540	206	DW 320/540 Col Kit	28
DeskWriter 660C	293	Deskjet 850C	383
DeskJet 1600CM	1219		
TEKTRONIX			
Phaser 140	849	Phaser 140e	1049
Phaser 340	3995	Phaser 340+	4455

MODEMS

APPROVED The connection to telecommunications systems specified in this publication may be made using approved modems for use with those systems.

APPLE			
Geoport adaptor	96	Express Modem	285
520 Express Modem	315	Duo Express Modem	220
ANDEST			
RR Rocket Gold	135	RR Rocket Terbo Plat	135
VPA V22bis	349	VPA V32bis	380
GLOBAL VILLAGE *(Not BABT Approved)*			
Teleport Bronze II	87	Teleport Gold II	120
Teleport Mercury	250	Teleport Platinum	230
Powerport Bronze	89	Powerport Gold	215
Powerport Mercury	250	Powerport Platinum	299
HAYES			
Accura 144 + fax	159	Accura 288 + fax	189
MULTITECH			
Internet in a box	235		
SUPRA			
FaxModem 14.4 LC	89	FaxModem 28.8 v.34	160
US ROBOTICS			
Sportster 14.4 + fax	107	Sportster 28.8 + fax	156
ZOOM			
Zoom 144	93	Zoom 288	159

Zoom Fax Modem V.34
- External plug and play modem
- 28,800 bps data/14,400 bps fax
- Data fax software

£159

Supra Fax Modem™ 288
- 28,800 bps data/14,400 bps fax
- Flash ROM allows for convenient firmware upgrades
- Includes Caller ID
- Silent Answer™ fax & voice line sharing
- Five year limited warranty

£160

US Robotics Sportster 28.8 Fax External

MAC&FAX

FEATURES
- Data Speeds; V.34 at 28,800bps, V.FC, V.32bis, V.32, V.23, V22bis, V.22, V.21, Fax:V.17 at 14,400bps, V.29, V.27ter
- V.42/V.42bis MNP 2-5 Error Correction/Data Compression
- Fax Class 1 & 2.0, Group 3
- Asynchronous operation
- Mac serial cable and MacComCenter software supplied
- BABT Approved

£156

SCANNERS

AGFA			
StudioScan	565	StudioScan IIsi	529
StudioScan II Tranny	269	Arcus II & Tranny	2219
APPLE			
OneScanner	360	Colour OneScanner	555
QuickTake 150	360	QT100+Photoflash 2	319
CAERE			
OmniScan	269		
EPSON			
GTx 6500	396	GTi 6500	566
GTx 8500	509	GTi 8500	695
GTx 9000	615	GTi 9000	802
Transparency Unit	436	Document Feeder	319
HEWLETT PACKARD			
Scanjet 3p	229	Scanjet 3c	599

MICROTEK

ScanMaker IIXE
- 24-bit/16.7million colours
- 300x600 dpi optical resolution
- 1200x1200 dpi interpolated
- 21.6cmx35.6cm scanning area
- Three pass scan with RGB filter
- PhotoShop full version

£426

MICROTEK Scanners · Software · Support *Transparency hoods and auto document feeders are also available*

Scanmaker II SP	545	Scanmaker III	1900
NIKON			
CoolScan External	990	ScanTouch	870
UMAX			

UMAX SCANNERS TRANSPARENCY ADAPTER & DOCUMENT FEEDER AVAILABLE FOR ALL SCANNERS

Vista-T630
- 24bit/16.7m colour scanning
- 300x600dpi optical resolution
- 4800x4800 max res. thru Ultra View technology
- 3 Pass, RGB filter
- VistaScan Software Driver

£385

Vista-S8LE
- 24bit/16.7m colour scanning
- 400x800dpi optical resolution
- 6400x6400 max res. thru Ultra View technology
- Single-pass, colour CCD
- VistaScan Software Driver

£540

Powerlook Pro
- 30 bit colour scanning
- 600x1200dpi optical resolution
- 2Mb input/output buffer
- Transparency adaptor
- Single-pass, colour CCD
- VistaScan Software Driver
- Full Photoshop

£1970

Vista T630	385	Vista T630 Pro	775
Vista S6LE	475	Vista S6 Pro	835
Vista S8LE	540	Vista S8 Pro	955
Vista UC1260FE	765	UC1260 Pro	1035
Powerlook Pro	1970		

12 month replacement warranty on all Umax scanners

VISIONEER

Paper Port	299		

DAT STREAMERS

HP JETSTORE			
2000e 2Gb	741	5000e 4-8Gb	827
6000e 8-16Gb	920		
WANGDAT			
3100 Ext 2Gb	595	3200 Ext 4-8Gb	700
3400DX Ext 8-16Gb	795		

SYQUEST DRIVES

88Mb	245	105Mb	265
200Mb	360	270Mb	385

All inc cable, software & 1 cartridge

MO DRIVES

FUJITSU			
128Mb	569	230Mb	615
SONY			
128Mb D2	399	230Mb D2	535
1.3Gb	1659		

All inc cable, software & 1 cartridge

CD RECORDING

Philips CDD522 2x	1495	JVC XR-2001 2x	1499
Yamaha CDR100e 4x	2098	Ricoh RS1060 2x	1399
Toast CD-ROM	399	Toast CD-ROM Pro	599

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MONITORS

ALL Monitors listed are MPR-II, Low Radiation EXCEPT where marked •

APPLE

Performa Plus 14"	199	Trinitron 14"	234
MultiScan 15"	274	MultiScan 17"	630
MultiScan 20"	1299		

FORMAC PRONITRON

80.17 17"	526	80.20 20"	1210
80.20HP 20"	1250		

IIYAMA

MF8115 15"	259	MF8617 17"	490
MF8221 21"	1247	MF9121 21"	1209
MF8621 21"	1645		

NEC

Multisync XV14	225	Multisync XV15	275
Multisync XE15	395	Multisync XV17	549
Multisync XE17	688	Multisync XP17	899
Multisync XE21	1139	Multisync XP21	1749

PANASONIC PRO SERIES

TX-T1537 15"	315	TX-D1732 17"	470
TX-D1751 17"	639	TX-D2032 20"	1119
TX-D2123 21"	1349	TX-D2103 21"	1408
445M092 21"	1415	445X092 21"	1599

PHILIPS

15B 15"	247	17C 17"	419
17T Trinitron 17"	639	17A 17"	643
20C 20"	775	20T Trinitron 20"	1295
21B 21"	1355		

RADIUS

20GS 20" 2pg GS	579	21GS 21" 2pg GS	780
Pivot GS	489	PrecisionCol Pivot	655
PrecisionColor 17	879	PrecisionCol 20V	1179
IntelliColor 20e	1385		

RASTEROPS CLEARVUE

20-T 20"Trinitron	1045	20-T Enhanced 20"	1650

RasterOps ClearVue 20T Multiscan 20"Monitor

£1045

- 30-82 KHz scanning frequency
- 50-160 KHz vertical frequency
- Maximum resolution 1280 x 1024
- Mac adapter cable
- Energy Star rating, MPRII
- 1 year replacement warranty

SONY

CPD-15SF1 15"	305	CPD-17SF1 17"	585
GDM-17SEIT 17"	827	GDM-20SEVT 20"	1225
GDM-20SEIT 20"	1419		

SUPERMAC

Supermatch 17T	649	Supermatch 21TXL	1419
PressView 21T	2630		

TAXAN ERGOVISION

580 15"	279	880 17"	489
885 17"	615	1080 20"	895
1095 20"	1299	2100 21"	1499

VIEWSONIC

VS15ES 15"	245	VS15G 15"	319
VS17G 17"	545	VS17-2 17"	679
VS20G 20"	1030	VS21PS 21"	1331

Adapters available if required. Please call for details.

VIDEO BOARDS

RADIUS

8xj 1152x882 8bit	425	24xp 832x624 24bit	415
24xk 1024x768 24bit	599	24x 1152x882 24bit	799
LeMansGT 30bit	1099	Thunder/24 GT	1135
Thunder IV GX 1152	1599	Thunder IV GX 1360	1899
Thunder IV GX 1600	2399	PhotoBooster	699
PhotoEngine	860		

RASTEROPS

Paintboard Prism	550	Paintboard Prism GT	869

SUPERMAC

VideoSpigot	309	VideoSpigot LC	190
Spigot Power AV	720		

ACCELERATORS

DAYSTAR

PowerPro 601	Call	Turbo 601 66Mhz	869
Turbo 040 33Mhz	489	Turbo 040 40Mhz	586
PowerCard 601	521	PowerCache 030	413

For full details please call

PLOTTERS

HEWLETT PACKARD

Designjet 230 A4 - A1	1390	D'jet 230 A4 - A0	1900
Designjet 600 A1	2716	D'jet 600 A0	3246
Designjet 650C A1	3750	D'jet 650C A0	4887
HP Designjet OSM	300		

ROLAND

Sketchmate A4	409	Sketchmate A3	545
DXY-1150	585	DXY-1250	710
DXY-1350	945	GRX-350	2379
GRX-450 A0	2968		

SUMMAGRAPHICS

Mono A1	1865	Colour A1	2345
Mono A0	2345	Colour A0	2680

NETWORK CARDS

APPLE

Ethernet NB	155	Ethernet LC	95
Ethernet NB TP	80	Ethernet LC TP	68
BNC/TP Transceiver	34	AUI Transceiver	54
CommsSlot Thin card	55	CommsSlot UTP card	55
CommsSlot AUI card	55		

FARALLON

EtherMac LC-TN BNC	79	EtherMac LC-10T UTP	75
EtherMac II-TN BNC	75	EtherMac II-10T UTP	79
EtherThin Printer/Powerbook/Netwon Adaptors			240

PLANET

Planet II Lite	650	Planet II Full	820

HUBS

3COM

FMS II 12port+AUI	379	FMS II 24port+AUI	670

ASANTE

Hub/8 8port+BNC	160	Hub/12 12port+BNC	330

DAYSTAR

MiniHub 5	160	MiniHub 8	190
Stack 12	570	Stack 24	1030

D-LINK

DE809TP 8port	130
DE812TP+ 12port & BNC & AUI	175
DE816TP 16port & BNC & AUI	235
DE824TP 24port & BNC & AUI	352
DE1200 12port & BNC & AUI stackable	299
DE1600 12port & BNC & AUI stackable SNMP	525

FARALLON

Ether10-T Starlet/4	130	Ether10-T Starlet/8	170
Ether10-T Starlet/16	370		

HP ADVANCESTACK

Hub 12	325	Hub 24	550
Hub 48	1045	Hub 12 SNMP	480
Hub 24 SNMP	719	Hub 48 SNMP	1129

SMC

TigerHub TP6 6Port WorkGroup UTP	155
TigerHub TP6B 6Port WorkGroup UTP	170
TigerHub CX6 6Port WorkGroup BNC	430
TigerHub FL6 6Port WorkGroup Fiber	971
TigerHub TP12 12Port WorkGroup UTP	295
TigerHub CX3 3Port WGroup BNC	210
Elite 3812TP 12 & 2 port stackable UTP	399
Elite 3812TP 24 port stack bundle UTP	840

CONSUMABLES

DISCS	10	100	250
Unbranded 1.44Mb DSHD	50p	40p	35p
Branded 1.44Mb DSHD	60p	40p	35p
CD RECORDABLE	**1**	**10**	**100**
650Mb/74min	10	8	7

CABLES	2m	3m	5m	10m
Macintosh Printer	5	-	8	15
Ethernet Coax BNC-BNC	5	-	8	10
			1m	**2m**
SCSI C50M-C50M			8	15
SCSI C50M-HC50 Micro D			19	29
SCSI HC50 Micro D - HC50 Micro D			29	39
SCSI C50M-HC68 Wide SCSI			65	-
SCSI HC50 Micro D - HC68 Wide SCSI			65	-
SCSI D25M-C50M			6	19

ADAPTORS

BNC Twist-on	2	BNC T-Piece	2
BNC Terminator	5	SCSI C50 Terminator	10

ORIGINAL INKJET CARTRIDGES

SWriter 2200 blk	25	StyleWriter 2200 col	29
StyleWriter II/1200	14	SWriter Pro HiCap Blk	7
SWriter Pro Colours	8	A3 Colour Black	19
SWriter blk Tank	11	SWriter Col Tank	17
A3 Colour Colours	23	SWriter 2400 Black	20
SWriter 2400 Col	25	Epson Sty Col, Black	12
Epson Stylus Col, Col	29	HP DW 310/320/Port	15
HP Deskwriter Black	18	HP Deskwriter Colour	18
HP DJ 1200CPS Black	17	HP DJ 1200CPS Cols	24
DJ 850C/1600CM Blk	20	HP DJ 850C Colour	25
HP DW 660C Black	19	HP DW 660C	20
HP Paintjet Colour	20	HP Paintjet Black	18
HP Paintjet XL Black	15	HP Paintjet XL Colours	17
HP Paintjet XL300 Blk	15	HP Pjet XL300 Colours	17

TONERS

Personal LW300/320	45	LW Select 300/310	49
LW Select 360	71	LW 16/600 Pro 630	91
LW Pro 810	200	HP Laserjet 4ML/4MP	43
HP IIIsi/4SiMX	85	HP Laserjet 4M/+	68
HP Laserjet 5MP	69	TI MicroLaser	30

DATA CARTRIDGES

2Gb/4Gb 90m DAT	16	4Gb/16Gb 120m DAT	20

MO DISCS

128Mb 3.5"	25	230Mb 3.5"	39
1.3Gb 5.25"	75	1.5Gb 5.25"	95

SYQUEST CARTRIDGES

44Mb	29	88Mb	34
105Mb	35	200Mb	52
270Mb	41		

DIGITISERS

CALCOMP

A5 DrawingSlate	285	A4 DrawingSlate	365
A3 DrawingSlate	515		

WACOM

ArtPad	129	ArtPad+Dabbler	170
ArtPad+Painter 3	375	A5 Tablet+Painter 3	505
A5 Tablet	255	A4 Tablet	430
A3 Tablet	671		

SOFTWARE

ACCOUNTING

MYOB 3.0	170	Ritz Accounting	239
Ritz Meridian	132		

BUSINESS

ACT 2.0	145	ARoute Exp GB & Ire	89
Claris Organiser	39	Lotus Notes Express	135
MS Mail 3.1	173	MS Project 4.0	Call
Now Contact	59	Now Up-To-Date 3.0	59
Ritz Meridian	132	Symantec C++ Pro	213

CAD

MiniCAD 5.0	450	TurboCAD	69

COMMUNICATIONS

Connect II	120	Fax Pro	69
Snatcher 1	35	MicroPhone LT	39
MicroPhone II 5.0	149		

DTP & FONTS

Acrobat 2.0	120	Acrobat Pro 2.0	355
Fontographer 4.1	335	PageMaker 5.0	379
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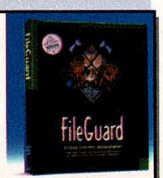

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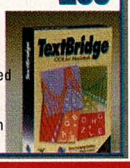

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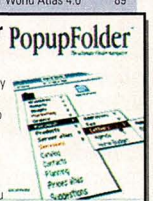

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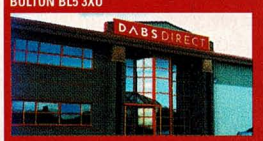

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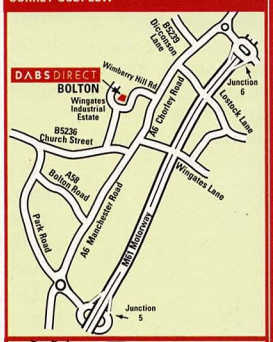

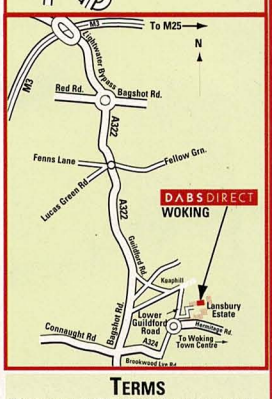

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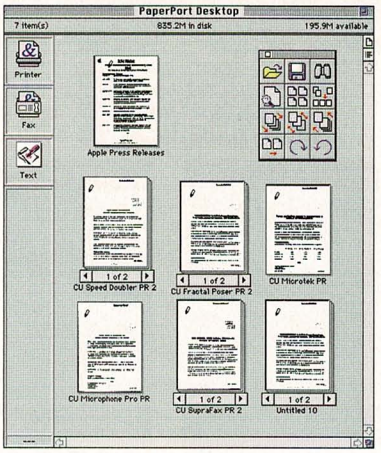
PaperPort

More than just a scanner, the PaperPort offers faxing, document management and it's a photocopier into the bargain. John Lewis puts PaperPort through its paces.



The PaperPort Desktop showing the tools palette for opening, saving, viewing, stacking and rotating documents. The icon well is down the left hand side and is set up to use *FaxExpress* as the fax and *MacWrite Pro* for text. Some of the documents are stacked and individual pages can be viewed using the cursor arrows.

The Visioneer PaperPort is a compact little sheet scanner that goes behind your keyboard. Feed pages through one at a time – it can scan an A4 page in less than ten seconds – and you can then use the software to add annotations to the scanned image, fax and/or print it. There's even Calera's *WordScan* optical character recognition (OCR) software built in.

Installation is easy, but for some reason the installation of the OCR software is not included in the PaperPort installation. The manual recommends at least 4Mb of memory is allocated to PaperPort – 6 to 8Mb if you want to do high resolution scans or OCR. So quite a chunk of RAM is needed, which means you're looking at 16Mb at least, if you want to run other programs at the same time.

The scanner plugs into the serial port and has an external power block which looks a bit large for the job it's doing. The controls on the scanner are minimal – just a button on the left which brings up the Settings Control Panel and acts as an abort command during scanning. There's no power switch – to toggle between On and Off press **[shift] [command] 9**. When you switch it off your Mac's speaker emits a downbeat chord; when you switch it on you get an upbeat chord.

To scan, just offer up the page to the gap in the front of the scanner. PaperPort grabs it and draws it through the scanner in literally seconds. The top of the PaperPort can be rotated so that the page being scanned exits either towards the rear or the front of the scanner. Use the rear position for thicker documents, such as business cards, as this is the straight-through path, so you won't bend thicker paper or card. There's none of the palaver of prescanning, selecting the area you want and waiting while it huffs and puffs its way through; just straight in and out. Instead of a paper guide to help you feed pages in straight, the software includes a **Straighten Page** command, which you soon get the knack of.

Quality images?

Scanning an A4 sheet takes around six seconds, with a further seven seconds or so for it to be processed and appear on PaperPort's built-in Desktop, which took up 66K when I did it. Increase the resolution to the 400dpi interpolated setting and the scanning time is extended by about six times (which isn't bad), and took up 116K on my Mac. Scanning photos takes twice as long, even at 200dpi, and in this instance used 215K. To give you a comparison, flatbed scanners offer either 300 or 600dpi, which can be interpolated up to 1,200dpi or more. 200dpi is the standard resolution for fax machines (which don't give very good images), so don't expect great results when scanning graphics and some text may be a little fuzzy – for best results you need to experiment with the Contrast and Brightness controls.

The software revolves around the PaperPort Desktop, which has icons down the left hand side. Thumbnails of the documents you scan appear on the Desktop and can be printed, faxed or moved into your word processor software by dragging them across and dropping them on the relevant icon. These are easy to set up and you can add linked icons for other programs you want to put the scanned images into. If you drag onto the text icon the OCR software kicks in and does a conversion before opening the word processor.

You can use the Print icon as a photocopier: just scan and then print as many copies as you require. Unfortunately, it doesn't cope at all well with colours or tints, so you'll spend hours juggling with the Contrast and Brightness settings trying to optimise any text that is on a coloured or tinted background. In the end I gave up. A normal photocopier handled the documents with no problem at all, so in this respect PaperPort was a disappointment. Needless to say if you try to fax coloured or tinted documents your recipient will get the same result – unreadable text.

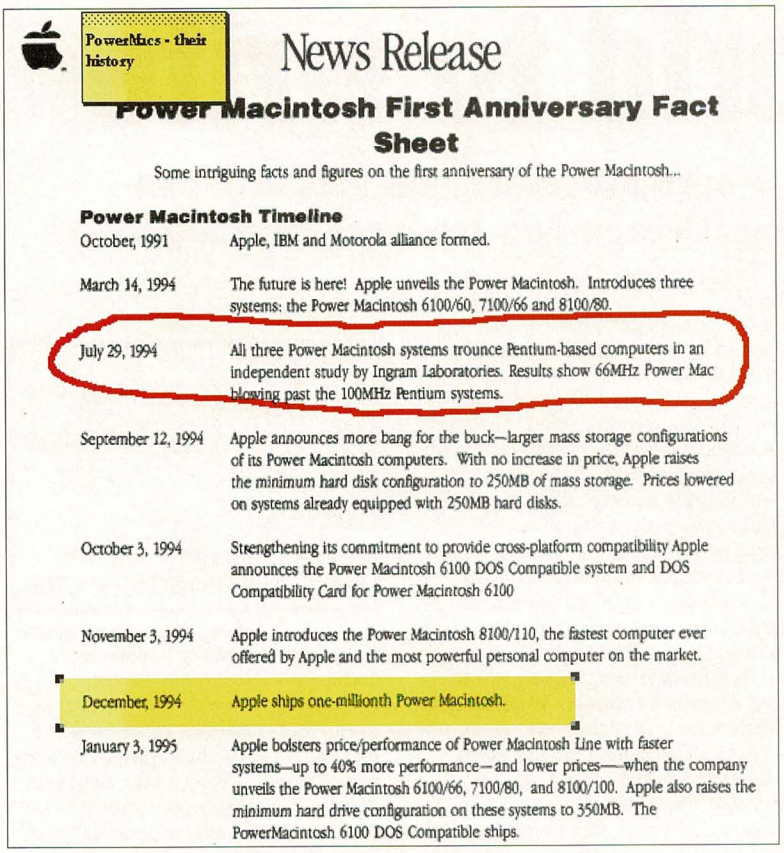
It seems odd that there's no Wastebasket. To delete a file from the PaperPort Desktop, you select that file and hit the delete button.

Once they're scanned, you can annotate documents using text or highlighting tools and

OCR

When you scan something, what you get is actually a graphic – so a scan of a page is a picture, not editable text which you can load into a word processor. But you can turn it into text using optical character recognition intelligently. It identifies text by each letter's unique attributes, regardless of font, style or size. If the image is unclear, the program guesses what the character is by looking at the letters or figures on either side of it. Unfortunately, it's seldom 100% accurate.

Believe it or not, PaperPort can scan, fax and print documents – and it's small enough to fit behind your keyboard.



PowerMacs - their history

News Release

Power Macintosh First Anniversary Fact Sheet

Some intriguing facts and figures on the first anniversary of the Power Macintosh...

Power Macintosh Timeline

October, 1991	Apple, IBM and Motorola alliance formed.
March 14, 1994	The future is here! Apple unveils the Power Macintosh. Introduces three systems: the Power Macintosh 6100/60, 7100/66 and 8100/80.
July 29, 1994	All three Power Macintosh systems trounce Pentium-based computers in an independent study by Ingram Laboratories. Results show 66MHz Power Mac blowing past the 100MHz Pentium systems.
September 12, 1994	Apple announces more bang for the buck—larger mass storage configurations of its Power Macintosh computers. With no increase in price, Apple raises the minimum hard disk configuration to 250MB of mass storage. Prices lowered on systems already equipped with 250MB hard disks.
October 3, 1994	Strengthening its commitment to provide cross-platform compatibility Apple announces the Power Macintosh 6100 DOS Compatible system and DOS Compatibility Card for Power Macintosh 6100
November 3, 1994	Apple introduces the Power Macintosh 8100/110, the fastest computer ever offered by Apple and the most powerful personal computer on the market.
December, 1994	Apple ships one-millionth Power Macintosh.
January 3, 1995	Apple bolsters price/performance of Power Macintosh Line with faster systems—up to 40% more performance—and lower prices—when the company unveils the Power Macintosh 6100/66, 7100/80, and 8100/100. Apple also raises the minimum hard drive configuration on these systems to 350MB. The PowerMacintosh 6100 DOS Compatible ships.

An annotated document showing stickies and highlighters. If required, these can be included with the document when it is printed or faxed. Colours can be made transparent or opaque to hide items. Normal text can also be added.

attach simulated yellow sticky notes – the fake glue strip along the top seems a bit pointless though. These stay in place when the document is subsequently faxed or printed, so they're ideal for filling in forms. Just scan the form, fill in the blanks and print it – a professional looking job without a typewriter in sight, but make sure that you don't feed the form in skewwhiff.

Documents from the Apple Desktop can be dragged onto the PaperPort one and they'll be automatically converted to the PaperPort format. If a document can't be converted this way, there's a PaperPort printer driver in the Chooser which can print directly onto the PaperPort Desktop. In common with Adobe's *Acrobat* (software designed to read any document, regardless of the program it's created in), Visioneer's document format is transferable across platforms. There is even a free PaperPort Viewer, so you can share your documents with people who don't have PaperPort themselves.

You can share documents with people who don't have PaperPort themselves.

Computers were supposed to usher in the era of the paperless office but they've actually increased the amount of bumph floating around. If all these bits of paper could be scanned and kept filed on the computer ready for instant retrieval, then life would be a lot easier – this is what the Visioneer PaperPort does. Scan in multiple sheets and you can create a stack by simply dragging one thumbnail on top of another. You can then search for files – though compared with Apple's own **Find** facility it's painfully slow. Better is the search for annotations which can find documents (even in stacks on the PaperPort Desktop) that contain the relevant characters.

The OCR is adequate. *WordScan* can't handle columns of text at all well, despite a columnise/decolumnise option. On difficult documents, pushing the scanning resolution up to 400dpi made a difference but it takes longer to scan.

The biggest advantage of the PaperPort is also its biggest drawback. It is a serial device, which means it has to plug into either the printer or the modem port in the back of your Mac. If you have a printer on a LocalTalk network and a modem, you'll find there just aren't enough holes in the back of your Mac! Visioneer suggest that you buy a switch box, which is a reasonably inexpensive and effective solution, or you can buy the electronic equivalent, such as Axion or Port Juggler – although these are not readily available in the UK. If you're feeling rich, you could buy a NuBus card, which provides additional serial ports, or you can just unplug and plug in leads as necessary – the cheap but tedious option. If you're on a network, try PortShare from Network Analysis (costs well under £100, tel: 01203 419996) to create a virtual modem port on another Mac, releasing the one on your Mac for PaperPort.

Is PaperPort worth the retail price of £433.58? The ScanMaker IIG includes *PhotoShop Lite* and *OmniPage Direct* at £469.94, as does the Apple One-Scanner at £527.75. For around £150 to £200 more you can get a colour scanner. But PaperPort is much more than just a scanner – it functions as a fax, photocopier and document manager, so you really are getting a lot of bang for your bucks. Ideal for the small office or home user who aspires to a paperless office, it is a great bit of kit which integrates hardware and software in a Mac friendly way. **MF**

Native version of MicroPhone Pro provides fast and easy access to the Internet

Software Ventures Corporation today announces a Power Macintosh native version of MicroPhone Pro, adding to its award-winning range of communications software. This new release—version 2.1.1—also includes a suite of Internet utilities and applications, giving MicroPhone Pro users the broadest range of options available on the Internet.

MicroPhone Pro 2.1.1 was created to take full advantage of the speed of the Power PC chip set—functions such as loading, dialog display, script execution and screen speed run up to ten

A partial scan of a document.

Native version of MicroPhone Pro

provides fast and easy access to the Internet

Software Ventures corporation today announces a Power Macintash native version of MicroPhone

Pro, adding to its award-winning range of communications software. This new release-version

2.1.1-also includes a suite of Internet utilities and applications, giving MicroPhone Pro users the

broadest range of options available on the Internet.

MicroPhone Pro 2.1.1 was created to take ful(advantage of the speed of the Power PC chip

set-functions such as loading, dialog display, script execution and screen speed run up to ten

times faster than its earlier version. MicroPhone Pro's powerful scripting language runs faster than

The OCR version of the same document. A lot of editing would be required to get it back into its orignal format and style.

PAPERPORT

Price: £433.58. Out: now.
Requires: LC or better, System 7 or later, 4Mb of RAM (8 to 12Mb for the OCR software), 5Mb free hard disk space minimum.
For more details contact Computers Unlimitied on 0181 200 8282.

FEATURES 80%
Loads you can do, it's just a pity it can't handle colours or tints effectively.

EASE OF USE 87%
A couple of anomalies but nothing major.

DOCUMENTATION 95%
Readable and instructive.

VALUE FOR MONEY 79%
Should be cheaper for the market it is aimed at.

MACFORMAT RATING 86%

PORT JUGGLER

This a simple interface that enables you to plug up to four serial devices into one of your serial ports. You plug it in, set up the software so that your Mac knows what's where and your toil is over – the rest it does itself. Port Juggler can also be used to share one serial device (eg a modem or a printer) between up to four Macs. Port Juggler 3.0 costs $99 plus $35 p&p from Momentum Inc in the USA, tel: 00 1 808 263 0099.

SWITCH OVER

A switch box is a very simple, inexpensive device that works a bit like a double plug. Just plug it into a serial port, and hey presto! You have two serial ports to plug your hardware into. You should be able to procure a switch box from any big computer retailer.

Put the world to write

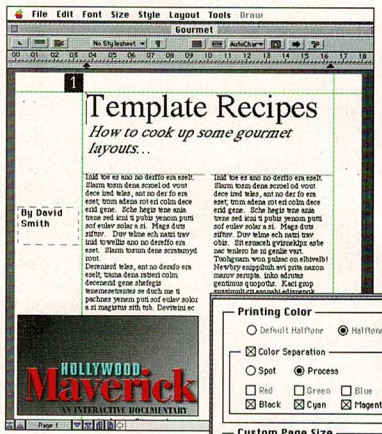
WorldWrite is not only a word processor that supports non-Roman languages such as Hebrew and Japanese. It can offer much more, as Ofir Gal explains.

Try out _WorldWrite_ for yourself on the CD-ROM! See page 8

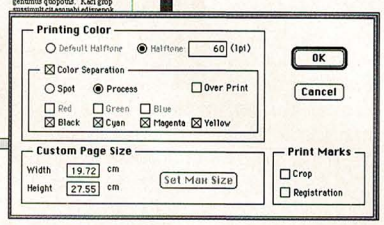
The Mac word processing scene is pretty much cornered by the mighty *Microsoft Word*. However, the latest version of *Word* is proving too much for many Mac users to bear. It looks like a Windows program, it's big and slow and requires more memory and processor power than most of us can afford. It is no surprise then that WorldSoft have chosen this time to introduce *WorldWrite*, their already successful product, to the English speaking world.

WorldWrite is a popular Mac word processor. So how come you haven't heard much about it? That's because it found its success in the Far and Middle East, where the requirements for a word processor are quite different from Western needs. By adopting WorldScript (see the 'Read the Script' box below), *WorldWrite* can cope with Japanese, Chinese, Arabic, Russian and Hebrew among other languages. This requires the program to be able to cope with right-to-left formatting as well as scripts that contain hundreds of symbols, as opposed to most European languages, which only contain a few dozen symbols.

WorldWrite is described by its makers, American company WorldSoft, as 'the ultimate in highest end word processing'. That's quite an ambitious claim! The sales brochure goes on to say that *WorldWrite* is number one in functionality and user-friendliness. So how does it shape up?



One of *WorldWrite's* strongest points is its true 'WYSIWYG' display, enabling comfortable document design.

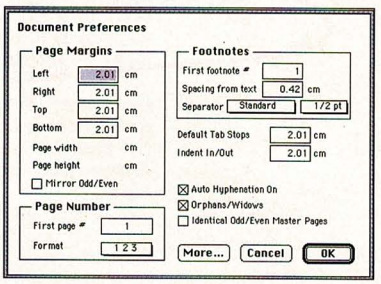


Rather uniquely for a word processor, *WorldWrite* can perform colour separation printing, including crop and registration marks.

World view

WorldWrite is a fairly small application (it can even run from a floppy) with a few support files that reside in the *WorldWrite* folder. The multilingual version installs WorldScript I into your System folder along with your chosen scripts, which in my case were Hebrew and Arabic. The manual rivals that of *Word 6* in size, but the installation leaves you a little confused as to which file does what.

The program requires less than 1Mb to run and presents a clear, Mac-like user interface. Being a Mac specific application rather than a port from Windows, *WorldWrite* supports most of the System 7.5 features, including Drag & Drop, PowerTalk, *QuickDraw GX* and the speech manager. It also supports Balloon Help and the new Apple Guide help system and runs native on the PowerMac. Since the program does not implement a custom interface, all dialogue boxes and windows are quick to appear and close and the program is stable, although, I must admit, I did somehow manage to crash it once or twice.



The Document Preferences dialogue box includes Orphan and Widow control, footnote margins, margin sizes and page numbering style.

As you'd expect, *WorldWrite* features all the standard word processing functions like font selection, text size and style, line and paragraph spacing, spell-checking, tabs and indents, but no thesaurus. The functions and various options are mostly to be found under the menus, with a few located in an icon bar situated just below it. It also sports colour separation printing with registration and crop marks and other DTP features such as word and letter spacing, kerning and horizontal text scaling.

Text editing

The most important aspect of any word processor is the ability to enter text and navigate your way around it. Unfortunately, *WorldWrite* is rather disappointing in this area. The arrow keys can move you around the text, one character at a time, but the cursor does not move on to the next line once you reach the end of a line. The other keys on the extended keyboard do not work at all, which means that you have to keep on reaching for the mouse while you're typing text, inevitably slowing you down. The program doesn't even use the Delete Forward key. There is no way of moving

READ THE SCRIPT

English versions of the Macintosh System prior to System 7.1 supported only a maximum of 256 different characters. So, if you needed to type in Chinese or other alphabets with thousands of characters, you had to use the Chinese version of the Mac OS, which also meant Chinese menus, Chinese alert dialogues and pretty much everything in Chinese. With the release of 7.1, Apple introduced a technology called WorldScript. This provides Romanic versions of the MacOS with the ability to handle larger character sets on an 'as-needed' basis. All you need to use this feature is System 7.1 or later, a module for the language you want and an application that is compatible with WorldScript.

Apple currently sell two language modules: the *Japanese Language Kit* and the *Chinese Language Kit*. These kits provide you with input method utilities and TrueType registered fonts for each language. An 'input method' is merely a way of entering text from these large character sets, using only the few keys you have on a Roman-language keyboard. For example, the *Japanese Language Kit* comes with an input method called Kotoeri. Using this, you enter the phonetic equivalents to Japanese characters.

When you install WorldScript (an Extension and a couple of Control Panels), you gain an extra menu at the right of the menu bar, enabling you to switch between installed languages at any time. You don't need to do this manually in *WorldWrite*, but it may be handy in other programs.

You might hear reference to different versions of WorldScript. WorldScript I handles languages that have a relatively small number of symbols, like Hebrew and Arabic. WorldScript II can cope with thousands of different characters, as in Japanese or Chinese.

You should remember that WorldScript is not a translator. You cannot use WorldScript to enter English and have it translated into Japanese. It is essential that you have a familiarity with the relevant language.

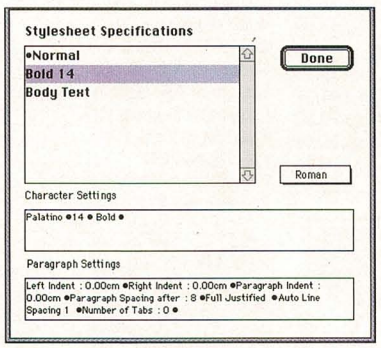
MARTIN JONES

the cursor even one word at a time – an odd omission.

A problem in previous versions of the program which prevented scrolling from one page to the next has been fixed. Two custom buttons at the bottom left of the window enable you to flip pages and jump to the top or end of a document. You can set text markers for improved navigation and also drag and drop text and pictures between documents.

Layout

As mentioned earlier, you can assign various attributes to your text – select a font, set its size and style and so on. *WorldWrite* takes this a little further than most word processors do, by enabling you to change the width of your text as well as letter and word spacing. The program also supports


Stylesheet Specifications
•Normal
Bold 14
Body Text
Done
Roman
Character Settings
Palatino •14 • Bold •
Paragraph Settings
Left Indent : 0.00cm •Right Indent : 0.00cm •Paragraph Indent : 0.00cm •Paragraph Spacing after : 8 •Full Justified •Auto Line Spacing 1 •Number of Tabs : 0 •

Stylesheets record or apply text style and paragraph settings. You can import stylesheets from other *WorldWrite* documents.

custom text styles such as strike through and over bar.

WorldWrite requires no special setting up before you begin creating your first document – just select your font and start typing. However, by defining Stylesheets and AutoChars you can gain even more control over your layout.

A stylesheet is created by taking a snapshot of the current document attributes at the cursor position. A style sheet contains all text attributes as well as paragraph formatting, kerning and spacing. You can quickly define stylesheets and name them body text, headlines, bullets, etc. The stylesheets are then available from the icon bar for quick selection. The AutoChar feature works in a similar way, but only affects text style. Both stylesheets and AutoChars can be assigned a keyboard command as well.

Clicking on the picture icon takes you to the page layout mode, where you can draw lines, boxes and circles as stand-alone text or picture frames. Images can be cropped and scaled. There is a facility to fit the image into a frame or to align it to the frame. Any lines or boxes can take a border and fill colour and pattern. Text overflow is quite sophisticated, so there nothing to stop you from creating a pleasant looking document.

WORLD RATING

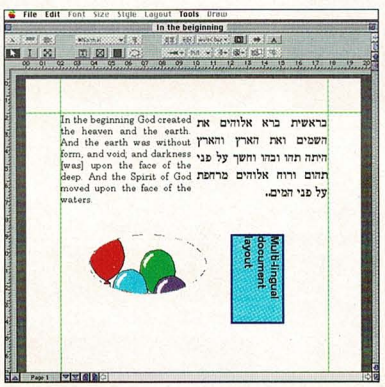
	WorldWrite 2	Word 6.0.1	ClarisWorks 3
Min. RAM	750K	2,000K	800K
Suggested RAM	1,500K	3,000K	975K
Application size	0.9Mb	3.9Mb	0.8Mb
Startup time	19 sec	32 sec	15 sec
Find & Replace	5 sec	4 sec	1 sec
Word Count	2 sec	11 sec	1 sec
Import text file	2 sec	4 sec	24 sec (via MacLink)

Other features

WorldWrite uses an external spell-checker called *Spellswell*, which is very fast compared to *Word 6*. If you write in more than one language you should find the additional foreign language dictionaries very useful.

The program can also generate an index and a hierarchical table of contents. Multiple columns are supported, even with a different language in each column. You can create tables, but these aren't as flexible as tables in *Word 6*. *WorldWrite* also has mail merge facilities with various print conditions. Find and Replace are multilingual aware, with quite powerful options.

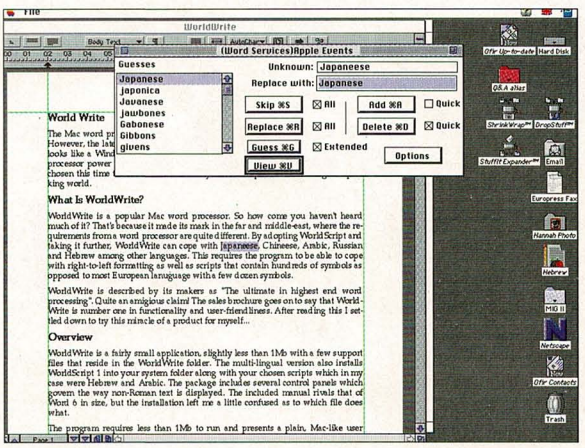
WorldWrite copes with non-Roman languages by utilising WorldScript – the process is invisible to the user. Selecting a Hebrew font automatically puts *WorldWrite* into right-to-left mode and switches the current script to Hebrew. You can even mix languages in a single line! If you quit *WorldWrite* or switch to another application, WorldScript reverts to the default UK mode.


File Edit Font Size Style Layout Tools Draw
In the beginning
In the beginning God created the heaven and the earth. And the earth was without form, and void, and darkness [was] upon the face of the deep. And the Spirit of God moved upon the face of the waters.
בראשית ברא אלוהים את השמים ואת הארץ והארץ היתה תהו ובהו וחשך על פני תהום ורוח אלוהים מרחפת על פני המים.
Multi-lingual document layout

WorldWrite will not complain if you ever need to lay out two languages side-by-side.

The write stuff

WorldWrite is an interesting program, but I disagree with WorldSoft's claim that their product is number one. In some areas (like the DTP-like style sheet facilities) it excels; in others it's nowhere near the competition. The use of an ADB dongle on the multilingual version caused some mouse jittering in all applications while *WorldWrite* was running on my Quadra 800. There's no zoom facility – instead, you switch to page view – but then you can't edit, so if you see something wrong, you have return to edit mode. On the plus side, the program does feature a 'what you see is what you get' display and, unlike *Word*, you don't have to switch to a layout mode to view and edit pictures and graphs. And of course it follows the Mac user interface style and doesn't look like it was borrowed from the PC world. If you need a multilingual word processor, you need look no further. **MF**



The spell-checker runs as a separate program that can be used without *WorldWrite*. It is fast, although not very flexible.

WORLDWRITE 2

Price: £164.44. (£234.94 for multilingual version). Out: now.
Requires: SE or better, System 7.1 or later, 2Mb of RAM, 4Mb of hard disk space (can run from floppy).
For more details contact ESD on 0171 251 5424.

FEATURES 75%
Has some nice features, but lacks some essential ones.

EASE OF USE 80%
Fairly easy to use thanks to a standard Mac-like look and feel.

DOCUMENTATION 75%
Well presented, but leaves some questions unanswered, especially regarding the multilingual aspects.

VALUE FOR MONEY 80%
Well priced.

MACFORMAT RATING 78%

ADB DONGLE

ADB stands for Apple Desktop Bus – that's the socket your mouse slots into. The curiously named 'dongle' fits between your mouse and your keyboard. It is a security device used by some manufacturers to prevent their software from being pirated. The dongle contains code so that the software it comes with can't be used without it. So don't lose your dongle!

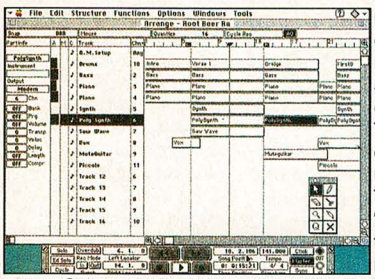
MORE WORD

The widely used *WordPerfect* range from Novell has announced a new addition. Among other features, *WordPerfect 3.5* can read your file names out loud! So watch this space for a MACFORMAT review of *WordPerfect 3.5* – soon.

Emerald Creative Technology

Desktop Music

CUBASE AUTHORIZED DEALER Steinberg



Cubase is Steinberg's open-ended concept designed to embrace today's important technologies and tomorrow's technological advance.Cubase offers a piano roll editor, list editor, custom drum editor, & notation editor. The arrange window takes the guesswork out of song construction. To cut a phrase in two, use the scissors - to join, use the glue tube ! The heart & soul of a song is the feel. With the "Groove Quantize" you create custom rhythm templates that let your music groove ! The range starts with Cubase Lite and goes all the way to Cubase Audio which adds multitrack direct-to-disk recording. All you need to get you going is a MIDI instrument, a MIDI interface like the Micro Mac, and any Mac with System 7 and 4Mb of RAM.

Cubase Lite £86.95
Cubase 2.5 ..... £339.95
Cubase Score £456.95
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If you're starting out, then we have just the thing for you - the Cubase Music Starter Pac. Containing Cubase Lite, a Micro Mac MIDI Interface, an online MIDI tutorial and help application, and 10 demo songs to show you just how great Mac'ed up music can sound.

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Log 2 Mac Midi Interface - 1 in, 3 out, printer thru switch, metal case £61.95
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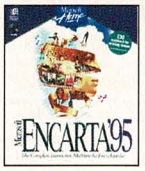
Reference



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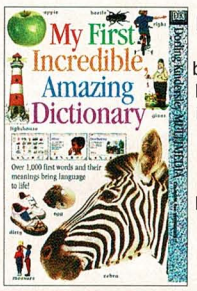

Dorling Kindersley's wonderful book becomes interactive. Ideal for ages 3-7, it is an introduction to 1000 words with sound, animation, games & activities
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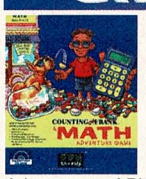
Childrens' Learning



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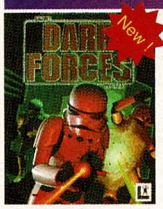
Leisure



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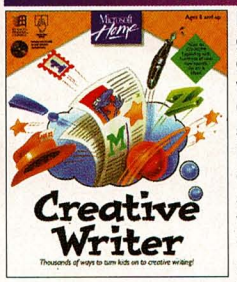
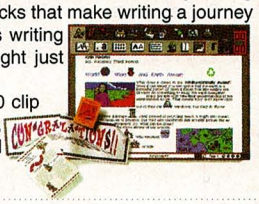
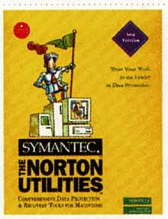


Creative Writer CD
£34.95

Microsoft's Creative Writer is a complete writing program that gives kids tools and ideas to explore their creativity and make great looking projects. And they can do it in a fun environment with wacky sounds and lively animation.
Creative Writer gets your imagination going with plenty of fun, step by step projects, suspenseful illustrations for story-writing ideas, and loads of tools and tricks that make writing a journey of creative discovery. It makes writing so much fun, your children might just **want** to do their homework !
Creative Writer comes with 600 clip art images, over 300 sounds, over 40 creativity projects, and much more!





Norton Utilities
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Norton Utilities is the worldwide standard in Macintosh utilities - the most powerful collection of tools ever developed for protecting and recovering your data. Norton Utilities proactively prevents trouble by alerting you when problems arise. It recovers data when disaster strikes. It even rescues data from totally trashed disks. Put these essential, award-winning tools to work for you and never fear data loss again !
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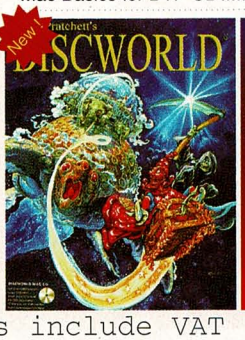

Terry Pratchett's Discworld's now in stock ! On CD at £37.95

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How Animals Move

If you've ever wondered how birds stay up or why giraffes don't fall down, you'll be fascinated by this action-packed CD-ROM. It can be a jungle out there... or a desert.

If an animal can't move, it's probably dead, and if it can't move fast enough, it soon will be. Whichever end of the food chain you're at, you have to be able to go where your food is and get away from predators. It is the grace and agility with which most animals achieve this that enthralls us. But why are cheetahs so fast, dolphins so graceful and penguins so flightless? All the answers and more are in this excellent CD-ROM encyclopaedia of animal movement.

There are eleven chapters in *How Animals Move*, covering the different ways of moving around, from flying and gliding to burrowing and crawling, as well as the mechanics behind it all and why it matters to the animals involved. The CD-ROM is packed with diagrams, animations, explanations and over 250 high quality QuickTime videos from the archives of the famous BBC Natural History Unit.

If you're not sure where to start, there's a guided tour for each chapter, depicted by an appropriate animal on the opening screen – click on the squirrel and it runs down the branch of the tree and disappears behind a button marked Climbing. These animations encourage you to join in and click on anything that takes your fancy, which means you get more out of this title than just watching the tours and turning the pages.

There's a multitude to do on the pages as well. Clicking on highlighted text brings up explanations or labels for the pictures, interactive graphs let you experiment, finding out how the size and shape of a bird's wings helps it glide, for example. Plus you can design your own animal in the simulations and try out what you've learned in some simple games – you'll have great fun swerving and dodging, attempting to keep a gazelle from becoming a cheetah's lunch.

Reading right through a chapter covers each subject logically and in depth, or you can jump around as your fancy takes you, using the many links to related information in other sections. You never know where you're going to end up, but a convenient Return button on each page takes you back to where you were. There are lots of different ways of finding information, including the index, glossary and search command, which covers the pictures, videos, animations and games as well as the text, and you can set your own bookmarks as you read. This is a well-organized CD-ROM that encourages you to explore and learn; it's not just another linear digital book.

There are plenty of fascinating facts in *How Animals Move* and lots of experiments to try out. The level varies from basic common sense and scientific principles to quite complex physics and biology, but it's all explained clearly with excellent diagrams and high-quality animations – and the games let you try the principles out in action. The information is based on authoritative research and along the way it dispels a few myths as well – such as the top speed of a cheetah, or how high a flea can jump.

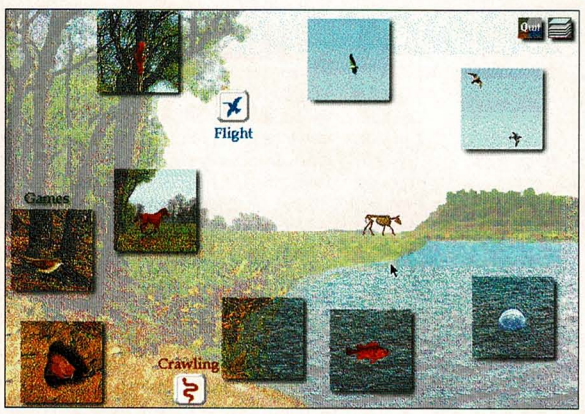
Movement isn't as narrow a subject as you might think, because almost everything else an animal does is connected with the way it moves. Even if you don't know your bats from your bivalves, the intriguing facts and clear explanations in *How Animals Move* should keep you amused – and informed – for hours. **MARY BRANSCOMBE**

ANIMAL EXPERIMENTS

The experiments in *How Animals Move* make you feel like a real scientist – but you may find yourself a little disconcerted by the number of references to the animal experiments that the information is based on, what with snakes on treadmills and birds in wind tunnels.

A DOLPHIN'S PORPOISE

Why do dolphins leap out of the water as they swim? Is it to reduce drag, to catch their breath or just to look around? No one knows, but they do it on porpoise.



The delightful animated buttons for the tours encourage you to join in and click away, though it's rather disconcerting when the cow that represents the machinery of movement melts to a walking skeleton.

Check out the Tour Guides – you probably know moles and worms burrow, but did you know a clam can dig itself down out of harm's way?

Put your mouse over the button for each chapter and it animates, with snakes wriggling and footsteps appearing.

How Animals Move gets you to learn from experience. After letting your fish float to the surface and get eaten by gulls once too often, you understand how a swim bladder helps it stay up or down in the water.

You can hide the menu to show a little more of the screen. Just press the menu bar to bring it back so you can run searches or check the index.

HOW ANIMALS MOVE

Price: £39.95. Out: now.
Requires: LCII or better, 4Mb of RAM (at least 2.5Mb RAM free), 13-inch colour screen, System 7 or later and a double-speed CD-ROM drive.
For more details contact Astrion on 0181 202 0011.

MACFORMAT RATING 86%

The Animals! 2.0

The San Diego Zoo offers family edutainment with a guide to wild animals, the zoo itself and a reminder that we are ruining the world for everyone else.

Featuring the San Diego Zoo and animals in the wild, as stated on the opening screen, *The Animals! 2.0* uses the natural environment and the zoo to study wild animals. It's a great ad for the San Diego Zoo, but it also shows how some people are trying to undo some of the damage we've all caused.

If nothing else, *The Animals!* is user friendly. The Main Menu should certainly get kids interested. It's a simplistic bright picture with various items in it – a ladder, a Landrover, an animal skull, mountains, forests, buildings... Throughout the CD, whatever you place your mouse on, a label springs up by it. Press down the **[option]** key, and an explanation is added. So, for instance, you discover that the ladder in the picture is the 'Jungle Bungalow' – a section about jungle animals.

The whole CD is based on a format of photographs and text with a sprinkling of QuickTime movies and soundtrack. A bit less reading would have been preferable – do you want to spend hours reading off your monitor? And a lot of the QuickTime movies are very pixellated, even on thousands of colours with a PowerMac. They also have a tendency to start in the middle, or skip from the start to the end and leave the middle out, but you can replay them, so this isn't a huge problem. There are loads of options and you can link to anywhere on the CD, but the constant repetition of one formula is tedious. To be fair, the photos are lovely, but then animals are naturally photogenic!

The topics cover the animals that dwell in the ten 'biomes' (the different climates across the planet – deserts, islands, savanna, rain forests etc), aspects of the San Diego Zoo and what appear to be games ('A to Z Gallery', 'Creature Features').

Unfortunately, what look like games are really just another way of accessing the same information you'll find in the biome zones. What looks like a bowl of alphabet soup, is an A to Z Gallery of animals. A is for alligator, U is for uakari, F is for flamingo... well, this could be a good way for children to discover animals they haven't heard of. There are links too, so you can find out more about an animal or other species in the same family. Follow the links, go wherever your interest takes you – you can always use the navigation palette at the top of your screen to return to where you started.

But be warned, *The Animals!* is slow. Every time you access something, you'll have to wait – presumably because this CD contains such a vast amount of photographs.

The best bits of the CD are the zoo-related topics. The zoo animals are personalities, not just picture postcards. It appeals to your sentimentality, but it works. The San Diego Zoo breeds endangered species and releases them into their natural habitat (if there's any left). This is enthralling – more than an encyclopaedic catalogue of photographs and endless boxes of eye-straining text blinking uninspiringly at you.

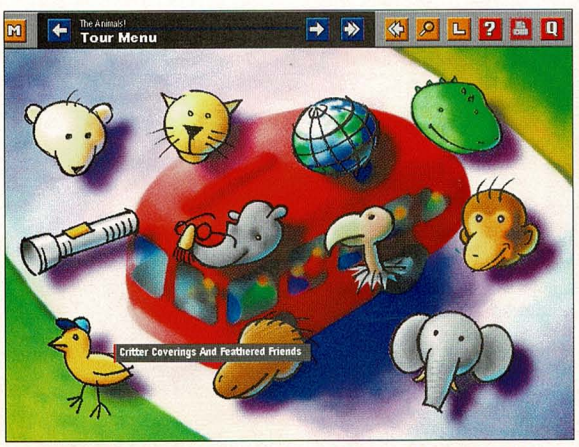
There's also a Tours section, where you just select a topic (like bears, or big cats), sit back, watch and listen, and a Story Theatre with topics like 'Wildlife in Danger'; 'Wild Voices' (brilliant sound effects); 'Captive Breeding'; 'Zoo Doctors'... These are the sorts of things that excite interest – and they come with a soundtrack!

The Animals! 2.0 is slow, repetitive, and a bit too much like an encyclopaedia for a large part of its contents. But the coverage is wide (although not especially in-depth), there is a strong environmental message, and there are some delightful sections (especially the zoo-related topics). To just dip into, it can be entertaining and educational for children and adults. It's the sort of thing you'd keep coming back to, though it might not transfix you for hours at a time.

EVA LAUER

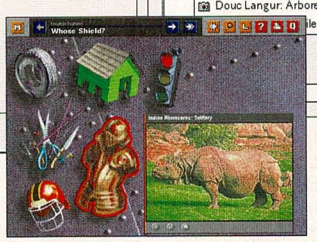
APLANET HOGS

Humans are the only species that exist in all of the ten biomes defined in *The Animals! 2.0*. It is partly because we can live anywhere on the Earth, whereas other animals cannot, many relying on one particular environment, that so many species have died out.

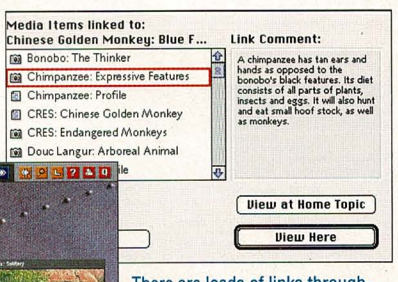


Take it easy. Pick a tour and the narrative and pictures tell you everything.

These thumbnails show you everything featured in the chapter you're in. Click on the relevant picture and the program takes you there.



Click on the armour, and you're told about the rhino's own 'armour'.


Media Items linked to:
Chinese Golden Monkey: Blue F...
Link Comment:
Bonobo: The Thinker
Chimpanzee: Expressive Features
Chimpanzee: Profile
CRES: Chinese Golden Monkey
CRES: Endangered Monkeys
Douc Langur: Arboreal Animal
A chimpanzee has tan ears and hands as opposed to the bonobo's black features. Its diet consists of all parts of plants, insects and eggs. It will also hunt and eat small hoof stock, as well as monkeys.
View at Home Topic
View Here

There are loads of links throughout the CD, so you've plenty of different ways to explore.

This is the slightly surreal main menu of *The Animals!*, which does its job of enticing you in.

Gordy the Gorilla is a particularly cute example of what you'll find in the San Diego Zoo nursery.

THE ANIMALS! 2.0

Price: £39.99. Out: now.
Requires: LCII or higher, Mac II series, Performa series, Quadra or PowerMac, 2.5Mb free RAM (3Mb recommended), 10Mb free hard drive space, 13-inch 256 colour monitor, CD-ROM drive.
For more details contact Mindscape on 01444 246333.

MACFORMAT RATING 72%

SLASH 'N' BURN

The tropical rain forests contain the greatest variety of life on the planet – 40 to 60% of all Earth's plants and animals live there. 50 to 100 acres of tropical rain forest are destroyed every minute.

Wild Africa

In the Serengeti, animals have to come first. Tanzania is home to many endangered species – without the national parks, they'd be doomed to extinction.

THE IMPACT OF ELEPHANTS

Elephants have more impact on the environment than any other species, except man – and our impact on the environment is forcing them into ever smaller areas of land where the plant life can't cope with many tons of elephants each consuming 330 pounds of vegetation a day.

WILDLIFE AT RISK

Wild Africa repeatedly refers to Tanzania's rich but vulnerable heritage and how the species you see are at risk. Shame it doesn't tell you anything about the conservation programmes going on or how you can help.

In England, a national park is a place where people can enjoy the countryside. In Africa, it's the animals that matter. Tanzania contains one of the most famous national parks in the world, the Serengeti, as well as the Tarangire and Ngorongoro parks. *Wild Africa* enables you to explore all three without ever leaving your Mac.

To introduce the parks, there's a Visual Tour, which is essentially a slide show of excellent photographs with a voice over and evocative music. Each photograph has its own narration, but you choose when to move on to the next image. The tour covers the habitats in the parks from marshlands to plains (and none of them the jungles of Tarzan!). When you click on a tab, a list of chapters slides out from the side of the screen so that you can jump around, although there's no way of telling where you are at any point. All the other commands are on a similar slide-out Control Bar.

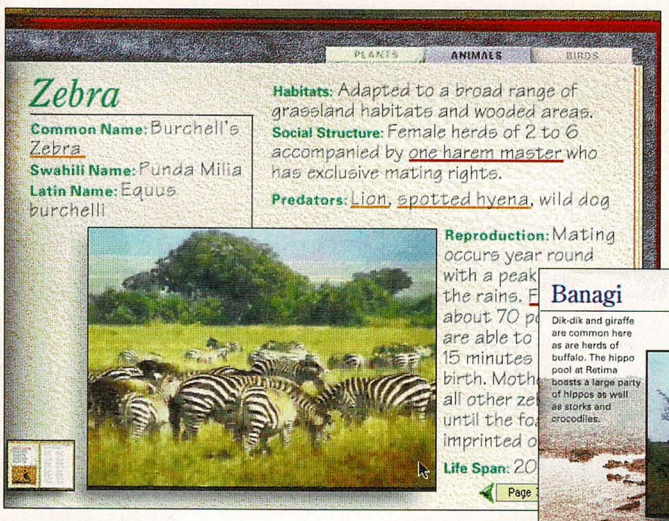
You can find out more about the parks and the species by clicking on the maps of the parks in the Location section. This gives you a page of text, images and video clips showing that area of the park and the animals and plants you'd find there. Although this is a very intuitive way to travel through the parks, in practice it's rather disappointing. There aren't many spots on the maps that you can click on and the videos aren't really suitable for use on a CD-ROM. Although the photography is excellent, QuickTime movies just can't cope with all the pans and zooms and the picture looks pixellated and out of focus much of the time. Zebras in particular are beyond QuickTime's abilities!

Although the photography is excellent, QuickTime just can't cope – especially with zebras

If you want to find out more about the species roaming the parks, turn to the Field Guide, which tells you about their habitats, mating habits and Swahili names (a rare reminder that this isn't just England with some wild animals in it). As well as the familiar lions, hyenas and flamingos, Tanzania is home to thousands of lesser-known animals, birds, reptiles and plants. Unfortunately you won't find out about most of them from *Wild Africa*. It only covers 75 animal species, over 40 of them birds, and ten of them plants. Disappointingly, the most exotic species here are the Agama lizards and the Dik Dik, an antelope that jumps like a jackrabbit. The videos are exactly the same as those in the Location pages, so there's little new information to be found here.

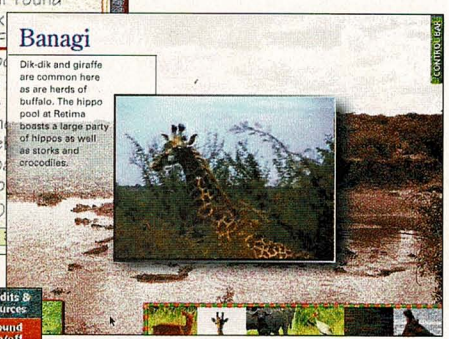
If you're interested in a particular animal, you can search through the photographs and QuickTime video clips, or the text of the Field Guide and even the movie narrations, although this is very slow and didn't find some of the references in the Visual Tour. Despite the exotic location and the photogenic animals, *Wild Africa* is disappointing. The interface is good but there simply aren't enough animals or enough information to hold your interest for long. It's an interesting taster, but ultimately frustrating as it is so limited.

MARY BRANSCOMBE


PLANTS
ANIMALS
BIRDS
Zebra
Common Name: Burchell's Zebra
Swahili Name: Punda Milia
Latin Name: Equus burchelli
Habitats: Adapted to a broad range of grassland habitats and wooded areas.
Social Structure: Female herds of 2 to 6 accompanied by one harem master who has exclusive mating rights.
Predators: Lion, spotted hyena, wild dog
Reproduction: Mating occurs year round with a peak
the rains.
about 70 p
are able to
15 minutes
birth. Moth
all other ze
until the fo
imprinted o
Life Span: 20
Page

The Field Guide gives you more information about the animals, birds and plants that are covered in *Wild Africa* – but there aren't enough species featured. QuickTime isn't really up to zebras either.

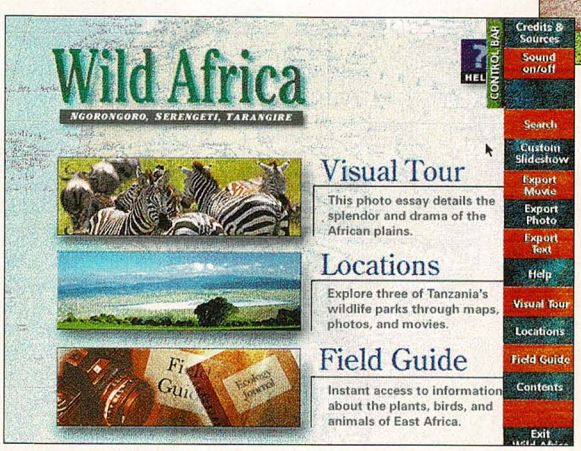
The map of the park is a great way of moving around and finding out what lives where, but there are hardly any spots you can click on.


Banagi
Dik-dik and giraffe are common here as are herds of buffalo. The hippo pool at Retima boasts a large party of hippos as well as storks and crocodiles.
CONTROL BAR

When you do find an area you can zoom in on, there's plenty of information about the landscape and the inhabitants.

Help: Locations
Locations
Control bar is always available
Click on any movie to bring up controller.
Click to explore a park map.
Click on a label to select a park. (Try it)
CONTROL BAR

Wild Africa's interface is simple to use, but if you do have any problems, the Help facility is very clear too.



Instead of a menu bar, all the available commands are on this pop-up Control Bar. But you can't get into another application without quitting the program.

WILD AFRICA

Price: £35.19. Out: now.
Requires: Mac LCII or better, 6Mb of free RAM, 256 colours, 13-inch monitor, System 7 or later and a double-speed CD-ROM drive.
For more details contact CD Direct on 01703 455115.

MACFORMAT RATING 62%

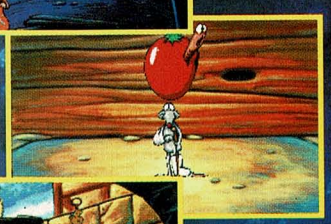
Terry Pratchett's

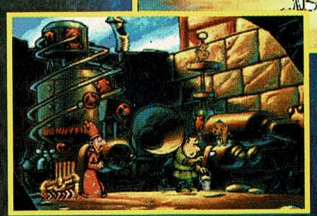
DISCWORLD®

Now Available on MAC CD - PC & PC CD
Coming Soon on Playstation

Rincewind the Wizard has spent a lifetime avoiding danger, but a dragon is ravaging Ankh-Morpork, and he's the unlikely hero who's got to rescue the city.

He's got the Luggage (a murderous accessory every traveller needs), a few necessary items (bananas are always useful) – and he's got YOU.





PERFECT 10 productions

TWG

Garden Wildlife

With Anglia TV you can meet the worm at the bottom of your garden. But can they compete with what is essentially a market dominated by American products?

PROOF!

Here is some scintillating in-depth information from *Garden Wildlife*, in case you can't quite believe it's as good as we say it is:

'Ladybirds hunt in the vegetable patch for food. They like to eat tiny insects called aphids.'

AMAZING FACT

Did you know that foxes sometimes build their nests under garden sheds? Well *Garden Wildlife* informs us, 'The young foxes are safe under the shed. The adult foxes raid dustbins to get scraps of food.'

Instead of a CD about lions, crocodiles and other such exotic beasts, this is a CD-ROM about the creatures that live in your own back garden. It's a fun idea and would be an excellent way of complementing school biology projects – children could use the CD to look up photographs and facts about animals they've seen.

Garden Wildlife starts with a view of a town, with a Library, a cinema, a garden, a park and Mike the Animal Expert's house for you to visit. If you go into the cinema, you can choose between loads of different QuickTime movies of various creatures, from pond skaters to hedgehogs. Only, you can barely distinguish what each creature is from the films, which are incredibly blurred with no soundtrack.

The park and the garden follow exactly the same concept. Various items are labelled – the hedge, the pond, the litter bin, the path, the shed etc – and you click on them to discover which animals live there. Even better, you can click on the sun to change it to the moon, and discover the animals that you'll find in those places at night. It's a lovely idea – a field trip on your Mac – but, sadly, there aren't very many animals covered and some of the little information supplied is even repeated.

It would have been better to concentrate on depth of information, but instead you get a little bit of text and one photograph for each animal. In some cases you also get a QuickTime movie, another photograph, an animation or some soundtrack, but that's your lot. Judging from the text, which is very simplistic, this CD is aimed at junior school children, but that doesn't mean *Garden Wildlife* should be scant in information and lacking in quality.

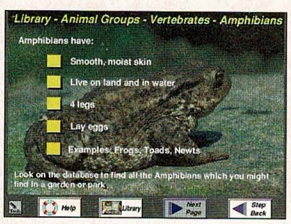
If you go into Mike the Animal Expert's house, Mike (a Bill Oddie lookalike) can help identify creatures you've seen by asking you different questions, such as, 'How many legs does it have?', 'Does it have a backbone?', 'Is it covered in fur?' and so on. At the end, he tells you what it is, you click on the name and you're shown a photograph of the relevant creature. It's an excellent idea. Unfortunately, there are no links throughout the CD, so you can't access the Library from Mike's house to find out more about the creature he's just identified for you. You have to go back to the town and then go into the Library, which is a pain – CD-ROMs are notorious for being slow, so every shortcut helps.

In the Library, you can use the Wildlife Database to look up all the animals covered in *Garden Wildlife*, you can do two extremely easy quizzes to test your knowledge, you can access a list of wildlife book titles (all six of them), and you can find out about animal groups – that is, the groups by which animals are classified: amphibians, reptiles, mammals, fish...

Garden Wildlife is very easy to use but it had one big problem: it kept quitting and crashing the Mac. In fact, it crashed three PowerMacs, a Performa and a IIci. The QuickTime movies wouldn't always run and they were awful when they did, and the soundtracks didn't always work either.

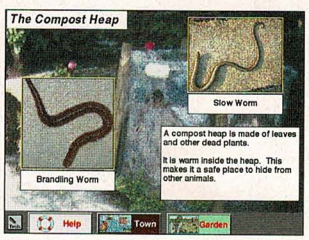
What a shame that *Garden Wildlife* doesn't contain very much information, because the basic format is excellent. With a few links, this quitting problem sorted out, more photographs, better quality QuickTime movies, and text that doesn't read like a *Peter and Jane* book, it could be really enjoyable and useful. It's always good to see a British product showing its face in this essentially American dominated market. Alas, British is not necessarily best, and in the case of this offering from Anglia Multimedia it's absolutely awful.

EVA LAUER

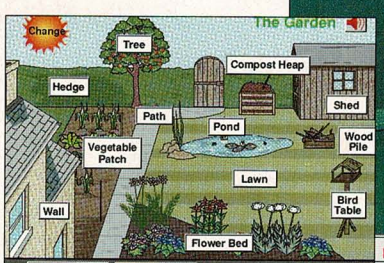

Library - Animal Groups - Vertebrates - Amphibians
Amphibians have:
Smooth, moist skin
Live on land and in water
4 legs
Lay eggs
Examples: Frogs, Toads, Newts
Look on the database to find all the Amphibians which you might find in a garden or park.
Help
Library
Next Page
Step Back

The Library is your best reference point if you actually want to extract any information from *Garden Wildlife*.

This is the town map, which shows you the many options to choose from. It's a happening place.


The Compost Heap
Slow Worm
A compost heap is made of leaves and other dead plants.
It is warm inside the heap. This makes it a safe place to hide from other animals.
Brandling Worm
Help
Town
Garden

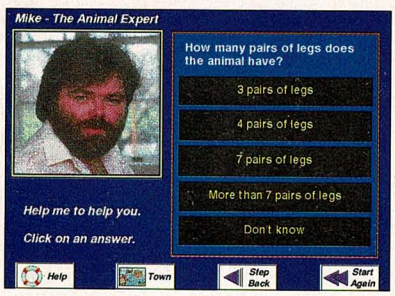
If that's all you've got to worry about finding in your compost heap, why does it smell so bad?



Just click on the labels to discover who lives there – if you click on the sun, you can find out about night-time animals.

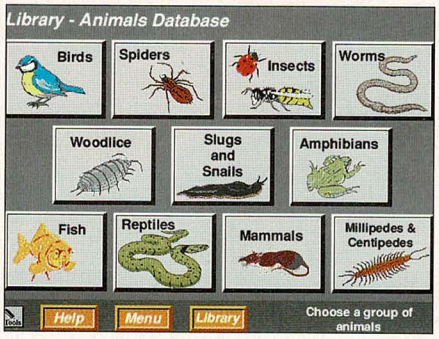
The Pond - Damselfly
In the summer you can see Damselflies resting on water plants.
They fold their wings close together.
Damselflies come to ponds to lay their eggs on water plants.
Help
Town
Garden
Pond

This is a fine example of the depth of information offered. Now you can impress all your friends with your knowledge.



Mike the Animal Expert can help you identify animals you've seen in your garden or park.

You can look up all the animals covered in *Garden Wildlife* on the Library Database.



GARDEN WILDLIFE

Price: £47. Out: now.
Requires: System 7 or later, 4Mb RAM minimum, CD-ROM drive, 256 colour 13-inch monitor.
For more details contact Anglia Multimedia on 01603 615151.

MACFORMAT RATING 33%

AND NOW FROM THAME SYSTEMS

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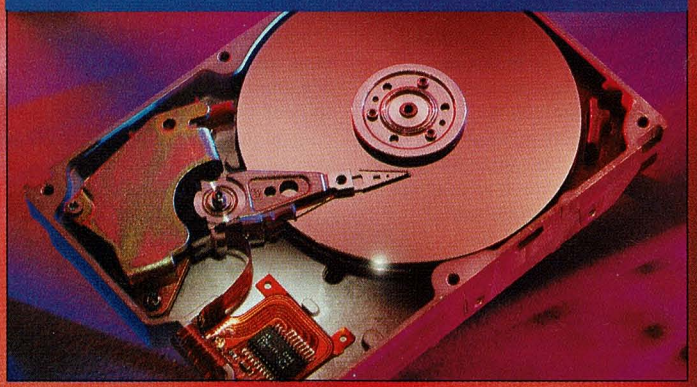

The Quantum Fireball™ hard disk drives feature leading areal densities and industry leading performance. Available in formatted capacities of 545 MB and 1092 MB, the Fireball drives exceed the demand of business, technical, and multimedia applications running on desktop systems and servers. Performance enhancing features include a SCSI and Fast ATA-2 interface for data transfer rates up to 16.6 MB/second, a PRML read channel for high internal data rates and increased areal density, and Quantum's AutoTransfer™ technology to minimise command overhead.

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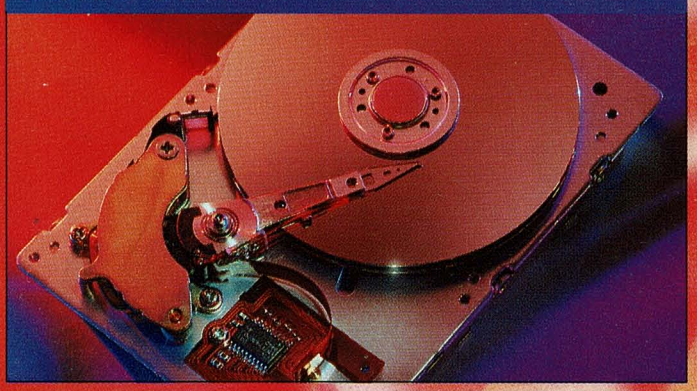

The Quantum Trailblazer™ 3.5-inch hard disk family provides industry-leading storage solutions for entry-level and mid-range desktop systems. The single-disk 420 MB drive is an ideal choice for the rapidly expanding entry-level corporate PC user, while the 850 MB Trailblazer is aimed at the rapidly growing home PC user. With a revolutionary mechanical platform and performance-enhancing electronics and firm-ware, the Trailblazer drives feature unmatched throughput, reliability, and power savings.

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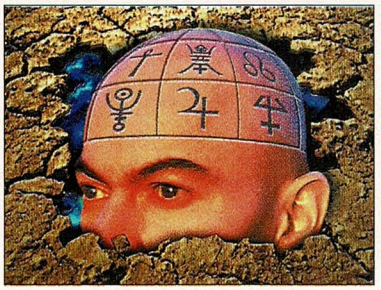
UnZip

How many CD-ROMs feature subjects as diverse as Manga, PJ Harvey, post-bungy euphoria and a graffiti artist called Sick? Not very many – but *UnZip* does.



The squiggles on the bald geezer's head are symbols, each one denoting a different section.

Proudly heralded as an interactive CD-ROM magazine aimed at the trendy youth of the UK – *UnZip* is upon us. So, if you found yourself puzzling over the list of subjects in the strapline, then consider yourself neither young nor trendy.

From the starting point of a lifestyle magazine, IPC and multimedia specialists Zone have combined to take the CD-ROM format by the scruff of the neck and have come up with *UnZip*. And their creative use of video clips, audio, graphics and text bring an extra dimension to the tried and tested format of the magazine. A breath of fresh air, *UnZip* makes a strong case for more projects of this kind.

Explore *UnZip*, with the demo on this month's CD-ROM

The magazine itself is divided into six sections: there's Pleasuredrome with its appropriately manic soundtrack, which deals with the extreme world of bungy-jumping; Netropolis is billed as a newcomer's guide to the Internet and is supplied somewhat perfunctorily courtesy of *New Scientist* magazine; Zone's Intersection dwells lovingly on the twin subjects of Japanese comics and animated films; while Checkpoint is the contribution of IPC music magazine *Vox*, and is basically the reviews section, looking at music, video, games and film; Alterstate is *UnZip's* art gallery and is as diverse as it is bizarre. Photography, art and animation are all covered; and Bomb the Bass, an *NME* interview with Tim Simenon, which gives you the chance to hear extracts from his latest album. As you may well have gathered, *Unzip* contains a whole load of stuff.

So what's with the ubiquitous bald-headed geezer on all the ads and accompanying literature? Well, the answer is, he's a tool – a navigational tool, that is. Each section is represented by its own unique symbol and can be located on his freshly shaven head.

Click on the symbol you desire and you arrive at the appropriate section interface. Navigation to any subject is of the 'point-and-click, see-what-happens' variety. Despite being choc-a-bloc full of information, it's a breeze to move around *UnZip* as freely as you wish. Just as with the print equivalent, you can studiously browse or casually flick through the content of this magazine as you please.

There is much to recommend *UnZip*. The sheer weight of information contained and the quality and diversity of its presentation are to be congratulated. The graphics are stunning and there is always a surprise or two in waiting. But what is most impressive is the dynamism and sense of identity that the makers have achieved to instil in *UnZip*, and right from the first issue.

One niggle is the promotional nature of the whole thing. As with many magazines it can be a thin line between genuine feature and advertorial. And every now and again you feel that the line is crossed. Particularly blatant is the piece on Propaganda films found in Checkpoint. It would be nice to think that this incestuous 'industry' kow-towing is only a starting limitation. Let's look for some extra autonomy shown from its makers in forthcoming issues.

At £15.99 – the introductory price, and only available quarterly – it's debatable whether this magazine will become a regular coffee table accessory; and it's also questionable whether the hip young gun-slingers that the mag is aimed at will get off their arses to buy it. But as a first stab at an intelligent interactive youth magazine, IPC and Zone's joint effort can only be applauded. Pop culture in the making? Believe me, there are no flies on *UnZip*.

GARY TIPP

THE ADVERTS

So what else has *Unzip* in common with its print cousins? Advertising for a start. Both Coca-Cola and Camel are featured on issue one but are unobtrusive and can be ignored totally. At least this is one magazine that was not full of irritating inserts that fall out when you pick it up.

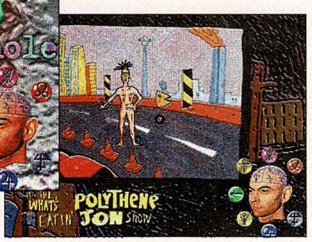
THE SMITHS

Unzip is available at selected W H Smith, John Menzies, HMV, Virgin and Tower Records. But is unlikely to be found on the top shelf.

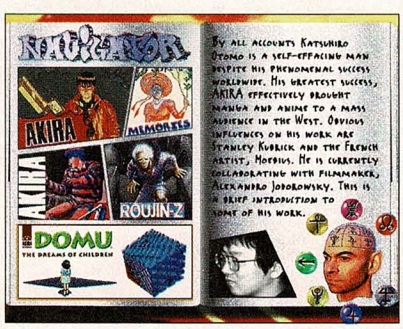
Pleasuredrome is dedicated to adrenalin sports and investigates the ups and downs of bungy-jumping.

Part of Interstate is an art gallery replete with the ambient sound of The Orb.

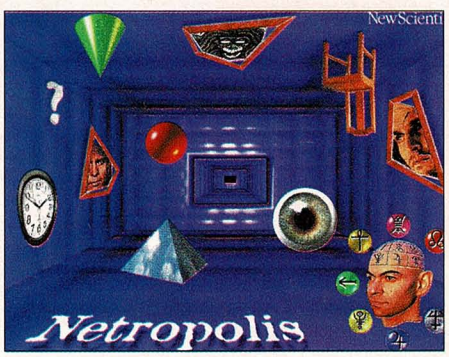
Checkpoint includes an article on 'girls with guitars' featuring PJ Harvey (but minus Duncan).



The star of Alterstate is Polythene Jon, a decidely camp cartoon character.



Intersection concentrates on the delights of Manga and Anime. It is an excellent primer for anyone with an interest.



This is the striking interface to the Netropolis section – a newcomer's guide to the Internet from *New Scientist*.

UNZIP

Price: £15.99 Out: now.
Requires: LCII or better, System 7 or later, 4Mb RAM, 13-inch colour monitor, double-speed CD-ROM drive.
For more details contact Zone on 0171 250 3040.

MACFORMAT RATING 85%

Blender

This magazine on CD-ROM brings you all that's hip in the States. But can *Blender* offer anything more than the legion of lifestyle magazines at the newsagent?

Some delightfully mellow and kitsch theme music welcomes you to the world of *Blender*. It's a magazine from over there (the United States) that hopes to do rather well over here. But unlike other magazines that chart the lifestyles of the young and trendy – like *The Face* and *i-D* – this one's on CD-ROM.

The plan is to release a £9.99 issue of Blender every two months. In issue 3 – the first to make it over to Britain – there's a chunky feature on the Internet and interviews with familiar figures of the alternative scene, like musicians Frank Black and Julianna Hatfield. It's a cultural goulash where today's guitar hero rubs shoulders with the latest film starlet.

You find your way around *Blender* through a series of contents screens, clicking on the section or feature you wish to see next. The bulk of the magazine consists of articles that are split into pages you leaf through with back and forward arrows on the screen. But there are also video reports, a glossy fashion spread and even an interactive comic strip.

The reviews cover everything from music, games and films. The main weakness of reviews on paper is convincingly eliminated, because with CD-ROM you can have a taste of what is being discussed while you read the review. For example, you can listen to a generous burst of music from an album or view a film trailer as a QuickTime video clip. Strangest of all is the Gameshow section, where you move a character around a set of moving platforms so you can select the game review you want. These additions certainly make up for the reviews not being very thorough.

The writing style in *Blender* is pacey and witty but not penetrating – it's a skim-reading experience typical of style magazines. You'll get introduced to a lot of new people and ideas, but if you want detail you'll have to look elsewhere. And it's very American, as you'd expect – you'll need to be immersed in Stateside culture to understand many off-hand references.

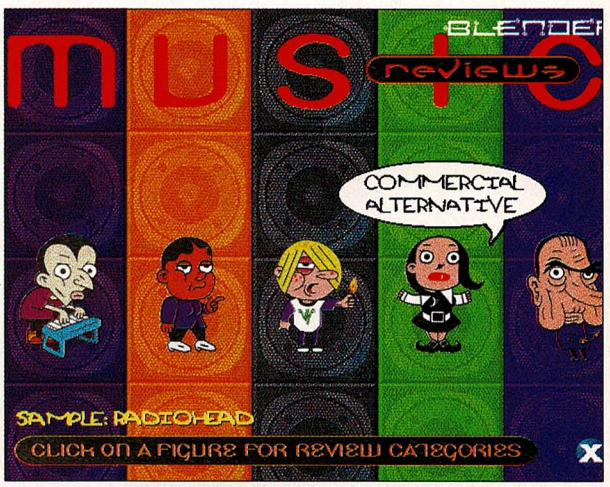
The presentation of the articles is near-immaculate, with only a few rough edges (notably in the games section). Music, video and graphics work together to give you a smooth ride through each feature. Simple animation and bold design give *Blender* a punchy, direct look, which is varied across the magazine so each piece offers something new. At the same time, facilities like menus remain consistent throughout.

With the contents divided into four main areas, it's easy enough to find your way around. But when you finish an article, you're returned to the main contents list rather than the one of the area you were in, which is annoying if you're trying to make your way through a set of features.

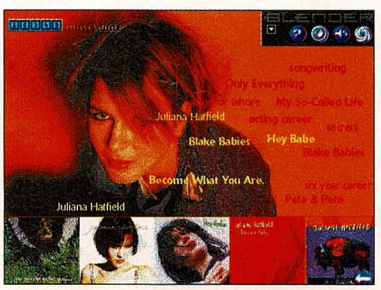
After finishing some articles, you'll have to go through an advert before returning to the contents. If you're intolerant of advertisers, you'll find these more intrusive than the printed variety because you can't ignore them – but there aren't too many.

Blender has the hit-and-miss quality of any style magazine – the presentation of some features is too flimsy. But it hits the target often enough to represent excellent value for money at £9.99. There's easily enough here to keep you reading or watching for some time. It's an imaginative attempt to give you a good briefing on the people who are setting the pace. But the simple fact that it's on CD-ROM may not be enough to make it a trendsetter itself.

RICHARD HILL



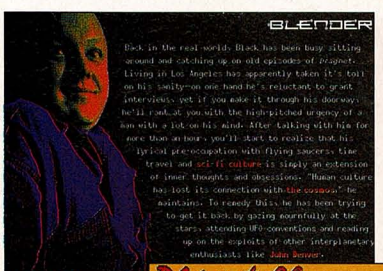
Discover what's in with the help of *Blender's* review sections, including music, film and games.



Pages of features offer a primer on the cultural icons of today on record, film or TV.

BEHIND YOU...

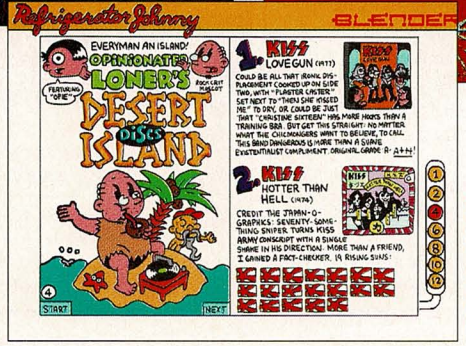
If you can't resist taking *Blender* to read on your Mac at work, there's a fake spreadsheet screen you can call up should you feel the gaze of your boss over your shoulder.



Pages are clearly laid out with imaginative graphics – move your cursor over Frank Black's photo and watch his reaction.

The bold, punchy graphics tell you as much about their subjects as the writing, which is more style than content.

The *Blender* CD-ROM magazine sets its sights on the people who are in demand in 1995.



Set to mutant Hawaiian beach music, *Refrigerator Johnny* tests the knowledge of the most avid culture junkie.

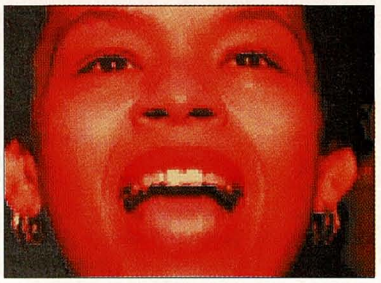
BLENDER

Price: £9.99 Out: now.
Requires:LCII or better with System 7, at least 6Mb of RAM, a 256-colour screen and a double-speed CD-ROM drive.
For more details contact Dennis Direct on 01789 490215.

MACFORMAT RATING 83%

Homegrown Fantasy

Can the dance music collective Zion Train pull off a radically new approach on multimedia?



One section reveals Zion Train's recent videos, including the *Dance of Life* single.

Gentle bass rhythms ebb and flow around you as you enter the CD-ROM world of Zion Train, a dub reggae and dance music group. From the very beginning, it's clear that the band intend to take you to places you've never visited on a Mac.

The disc takes an unique look at the global community, from native musical styles worldwide to the relationship between the individual and government. It's a far cry from the self-obsessed pop videos and discographies typically found on musicians' CD-ROMs – but don't worry, those are here as well! Most of the material consists of delicious, textured screens of words and pictures, with their presentation remaining inscrutable throughout. You're given very few clues about the content of the disc or where you'll find particular sections – it's up to you to find them by exploring.

Zion Train's *Homegrown Fantasy* CD-ROM is an uncompromising multimedia playground.

You'll have to be prepared to dabble and experiment to get the most out of this disc.

Sometimes it's difficult to tell which parts of the screen you're supposed to click on – it's going to be some time before you're sure you've experienced everything. And even the type itself is worn away at times, so it's more difficult to read.

But the design only echoes the content – a mixed bag of seemingly unrelated areas, with pieces of trivia or statistics appearing without notice. It isn't until you spend some time with the disc that an overall logic emerges.

Homegrown Fantasy is full of interesting details that add up to an inspiring exploration of music and community.

The CD-ROM of *Homegrown Fantasy* will prove unsatisfying if you're looking for a serious amount of detail – this is all about style. If you're interested in the creative possibilities of multimedia, try a disc that takes a different approach to making itself interactive.

RICHARD HILL

HOMEGROWN FANTASY

Price: £9.99.
Requires: LCII or better, System 7, 4Mb of RAM, a 13-inch, 256-colour screen and a double-speed CD-ROM drive.
For more details contact Pinnacle Distribution on 01689 870622.

MACFORMAT RATING 65%

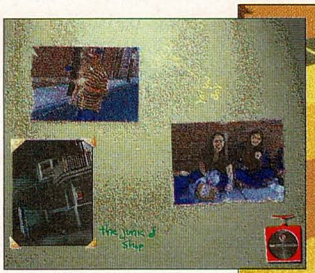
Eleven Track Player

Next time you're browsing in the 'brash guitar group' section of your record shop, you may notice there's a CD sleeve quietly announcing that as well as an albumful of music, the disc contains an interactive program. Nyack are one of the first acts to take advantage of the new CD Plus technology – your hi-fi plays the album, while your Mac takes the disc and goes multimedia...

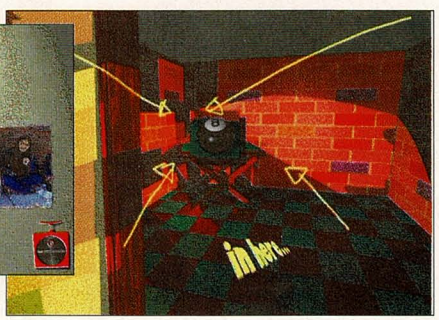
The album isn't half bad either – let's give it a rating of ★★★. But the multimedia section is sadly an unconvincing attempt to present the raw, street attributes of the music in visual form.

It's a scrapbook you leaf through by clicking on the screen's grey background. The pages appear in random order, so be prepared to see some two or three times before you've gone through all of the 20 or so screens. Each contains memorabilia of the two Nyacks – the group and the New York State town that gave them the name. There are photos and song lyrics scrawled on envelopes – by clicking on some of the photos, you'll also get to see video clips or move to one of the other sections.

Meet the members of Nyack and get a feel for the town that the group is named after.



The Nyack CD-ROM attempts to capture the streetwise feel of the music that it shares the disc with.



There's a 3D environment to explore, but there's precious little to actually do inside it.

There are a couple of hidden 3D environments to explore – once you've found them – but neither reveal anything much – the high point is probably some home movie-style snippets of the band hanging out and being oh-so wacky.

This may be just an addition to the album and not the point of the disc, but the multimedia section lacks vigour and personality – and it's not something you're likely to look through a second time.

RICHARD HILL

ELEVEN TRACK PLAYER

Price: £11.99. Out: now.
Requires: LCIII or better, System 7, 8Mb of RAM, a 14-inch, 256-colour screen and a double-speed CD-ROM drive.
For more details contact Echo on 01462 456780.

MACFORMAT RATING 47%

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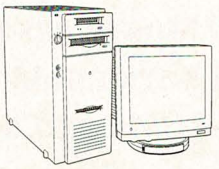

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Spelling it out

Phil Moore runs the etymological gamut from A to Z and back again as he thumbs through two dictionary CD-ROMs and sorts out the sheap from the gotes.

ALPHA

The Alphabet is a set of conventional symbols used for writing, based on a correlation between individual symbols and spoken sounds, so called from Alpha and Beta, the names of the first two letters of the classical Greek alphabet.

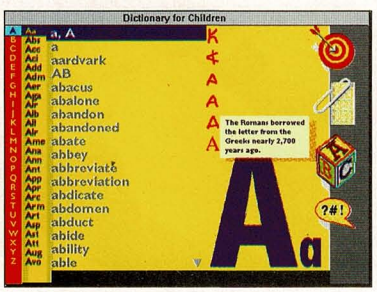
BETA

The earliest known alphabet is from Palestine, from about 1700 BC. Alphabetic writing takes many forms. The Hebrew 'aleph-beth and the Arabic script are both written from right to left. The Devanagari script of the Hindus has all its symbols 'hang' from a line common to all the symbols.

Some may consider it a little odd to go to a CD-ROM for a spelling rather than a tried and tested paper-based dictionary: after all, every school and most homes will have a print dictionary, and obviously not all will have a CD-ROM drive. Well, the news is that CD-ROM dictionaries don't perform the same function as print-based ones. True, you can look up spellings and meanings in both, but CD-ROM versions enable you to play in ways that print doesn't.

When was the last time you browsed a dictionary? The normal way of approaching a dictionary is with a word in your head that you either want to spell accurately or to find out what it means – perhaps while working on a crossword. Of course, as sophisticated, literate people, we can take a pretty good guess at how the word is spelt and can go to roughly the right place to find the word. But young children don't always have that knowledge, especially before or as they are learning their alphabets. For these reasons, children often have difficulty finding the words they want.

CD-ROMs offer a far more visual approach and can provide interesting and varied ways of searching. To illuminate the differences between print and electronic dictionaries, let's look at two new ones – Dorling Kindersley's *My First Incredible, Amazing Dictionary* (which for reasons of space, we'll now refer to as *My First Dictionary*) and Macmillan's *Dictionary for Children*.



Macmillan's *Dictionary for Children* has an extensive vocabulary of over 12,000 words.

My First Amazing, Incredible Dictionary is more visual in its approach and contains a vocabulary of 1,000 words.

Interface

You can see immediately the differences between the two dictionaries just with a quick glance at the main screens. Whereas Dorling Kindersley's approach is very visual, with pictures for each word, the Macmillan dictionary goes for a more alphabet-oriented approach. In fact, it's obvious from this that there are two different audiences being addressed here: Dorling Kindersley is aiming at young children who are just learning their alphabet (it contains 1,000 words), whereas Macmillan are going for children who can already navigate their way around letters (containing 12,000 words).

In both cases, you just point at what you want and click – nothing could be simpler! The only difference between the two is that with the Macmillan dictionary, aimed as it is at slightly older children, passing the cursor over the letter shapes brings up a box explaining how the forms of letters that we currently use developed from other languages over time. This is a neat idea, and very useful for the national curriculum which demands that children know how language changes and develops. However, it's a shame that this part wasn't extended to cover some or all of the words; the technical name for this is etymology. Knowing how words came into English, and how they've changed their meanings, can be very interesting for children, particularly if presented in the sorts of ways used in these CD-ROMs. The Dorling Kindersley dictionary doesn't include any reference to etymology.

Interface
***My First Dictionary* 85%**
***Dictionary for Children* 88%**

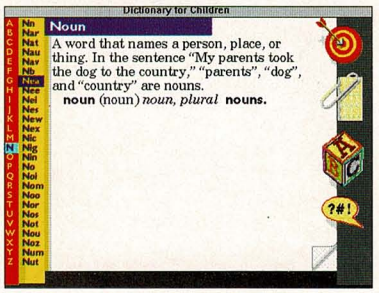
Looking up words

The way in which you look up words with the two CD-ROMs again reflects the different intended audiences.

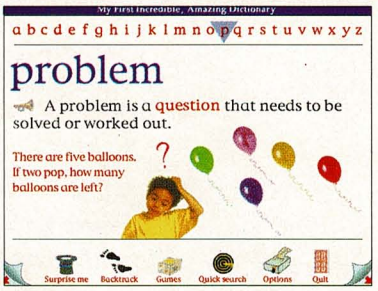
With the Macmillan dictionary, you navigate to words by clicking first on the letter of the alphabet and then on the letters which form the start of the word. You are then offered a list of words which you can scroll up or down until you see the word you want. The initial letter, and the first letter group, remain highlighted as you look at the definition offered: this helps to reinforce the arrangement of the alphabet and also gives a mental picture of where you are.

The Dorling Kindersley dictionary differs in that, although you still have to click on the initial letter of the word, you are then presented with both the words and associated pictures. The idea is that you scroll through the words until you find the one you want. Both the initial letter that you press and the word you select are spoken by a voice which is, very refreshingly, an English rather than an American one.

Looking up words
***My First Dictionary* 87%**
***Dictionary for Children* 87%**


Dictionary for Children
Noun
A word that names a person, place, or thing. In the sentence "My parents took the dog to the country," "parents", "dog", and "country" are nouns.
noun (noun) noun, plural nouns.
?#!

A problem with *The Dictionary for Children* is that your kids will speak with an American accent.


My First Incredible, Amazing Dictionary
a b c d e f g h i j k l m n o p q r s t u v w x y z
problem
A problem is a question that needs to be solved or worked out.
There are five balloons. If two pop, how many balloons are left?
Surprise me
Backtrack
Games
Quick search
Options
Quit

This is not a (p for) problem with *My First Dictionary*, which is an English product.

Definitions

CD-ROM offers a number of facilities, not least of which is the ability to combine words, sound and images. *My First Dictionary* takes full account of this and offers a picture for each definition, with some element of animation. For example, click on the boat in the 'sail' page and the boat gets blown across the screen. Given also that you can get the whole definition, or words within it, spoken by an English voice – and there's a mixture of adult and children's voices – each page is a potential adventure.

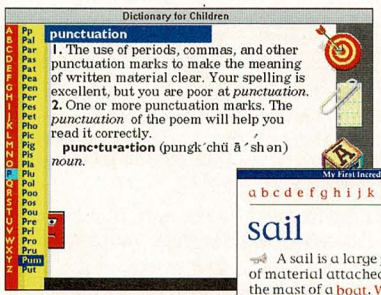
The Dictionary for Children is less elegant. True, you can ask for the words to be spoken out loud, but American voices are the order of the day, along with Americanisms such as the term 'period' instead of 'full-stop' – this could be very confusing for children. While there are pictures associated with definitions, I couldn't find very many, and few have animation. There have clearly been a number of assumptions made about the nature of the audience and the ways that the CD

CD-ROMs IN THE CLASSROOM

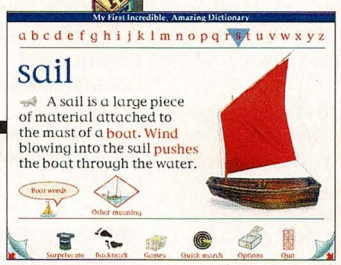
Often CD-ROMs are put in the Library or classroom resource area alongside print-based dictionaries. Teachers who use them tend to encourage children to compare the print versions and CD-ROMs as resources, providing evidence for both English and for IT Capability.

The games tend to be used in two main ways: as something for children to use to develop ideas – they explore around a certain idea, finding related words and ideas – or as a specific task, where they need to find out a meaning or spelling. Many teachers have found that the CD-ROMs stimulate more excitement about words than print-based ones.

Some teachers are experimenting with using CD-ROMs like these as models, using multimedia programs to enable the children to create their own animated dictionaries and word lists. This has the advantage of allowing children to focus on words with which they have difficulties, as well as creating a resource for other children to use.


Dictionary for Children
punctuation
1. The use of periods, commas, and other punctuation marks to make the meaning of written material clear. Your spelling is excellent, but you are poor at *punctuation*.
2. One or more punctuation marks. The *punctuation* of the poem will help you read it correctly.
punc•tu•a•tion (pungk´chü ā´shən) *noun*.

The Dictionary for Children is aimed at slightly older children than its counterpart.


My First Incredible, Amazing Dictionary
a b c d e f g h i j k l m n o p q r s t u v w x y z
sail
A sail is a large piece of material attached to the mast of a boat. Wind blowing into the sail pushes the boat through the water.

In *My First Dictionary* the words marked in red denote those for which a definition is present.

will be used.

In any reference work, the ability to cross-reference is a vitally important one. Both of these dictionaries provide ways of referring to associated words at the click of a mouse. In *My First Dictionary*, words which can be called up appear in red – you are then taken straight to the definition. In addition, in some words' definitions you get an icon which takes you to groups of associated words. *The Dictionary for Children* differs and you have to press the **[shift]** key as you click to access the cross-referencing facility. For its imaginative and friendly use of navigational techniques, *My First Dictionary* is much more accessible than *The Dictionary For Children* in the most important area of definitions.

Definitions

***My First Dictionary* 88%**
***Dictionary for Children* 75%**

Games

Both CD-ROMs offer word games as part of the dictionary. *My First Dictionary* has three games:

■ *Guess What?* In this game you are asked a question and offered three alternatives such as: 'Cats have 1. Goggles, 2. Crowns, 3. Paws.' The object is to work out which is right.

■ *Spell it.* You are given a couple of letters within a word with an animated clue to the word; you then have to fill in the missing letters.

■ *What's That Noise?* An entertaining game in which you have to match a sound to an animal or object.

The Dictionary for Children also has three games:

■ *Spelling Bee.* A word is spoken and you have to spell it.

■ *Hangman.* This is simply a computerised version of the well-known parlour game.

■ *Words Within Words.* Here the aim of the game is to make as many words as possible from the letters of a given word.

As these games are clearly aimed at different age groups, it's very difficult to compare them directly, but, generally speaking, I felt that *My First Dictionary* was better, in that there is much more life and zest in the games. In fact, the *Spelling Bee* game on *The Dictionary for Children* would be potentially quite tricky for some young children because all the words are presented with the American pronunciation in an American accent.

Games

***My First Dictionary* 89%**
***Dictionary for Children* 70%**

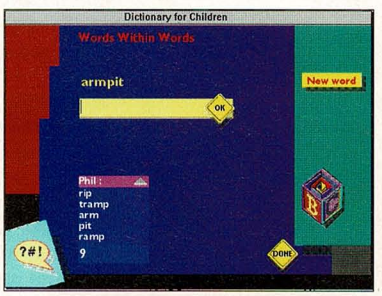
Other facilities

It's very much a case of swings and roundabouts here – for example, *The Dictionary for Children* provides the curious facility for children to compile 'My List', simply a list of words which they have chosen, for whatever reason. Unfortunately, it's impossible to save this list and it is cleared when you quit. *My First Dictionary* doesn't have this facility, but at least you are able to print out pages of the dictionary, something you can't do with the Macmillan's dictionary.

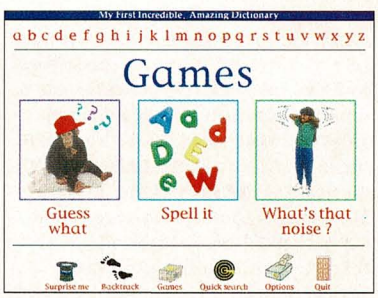
Finally, it's worth mentioning that *My First Dictionary* doesn't take up any valuable disk space as it runs entirely from the CD. *The Dictionary for Children*, on the other hand, takes up 3.2Mb of hard disk space. Different approaches indeed.

School Report

The overall look and feel of Dorling Kindersley's *My First Dictionary* is much more positive and lively than those of its American counterpart – there's far more use made of sound and animation, which are two valuable learning tools. Macmillan's *Dictionary for Children* suffers from using American voices and terms, but is probably more appropriate for children aged about seven and upwards. **MF**



Words Within Words is one of the three games on *Dictionary for Children*.


My First Incredible, Amazing Dictionary
a b c d e f g h i j k l m n o p q r s t u v w x y z
Games
Guess what
Spell it
What's that noise ?
Surprise me
Backtrack
Games
Quick search
Options
Quit

My First Dictionary also has three games, all of which are full of life and ideal for young children.

DORLING

Other educational titles available from Dorling Kindersley include *The Way Things Work*, which received 86% in MACFORMAT 23, and *The Ultimate Human Body*, 77%, in issue 27.

KINDERSLEY

Available soon from Dorling Kindersley is *Stowaway* – a new educational title with a maritime feel, focusing on sailing ships. Watch for a review in a forthcoming issue of MACFORMAT.

MY FIRST DICTIONARY

Price: £39. Out: now.
Requires: LCII or better, 14-inch colour monitor, 4Mb RAM (6Mb recommended), System 7 or later, CD-ROM drive.
For more details contact Dorling Kindersley on 0171 836 5411.

FEATURES This *will* keep children amused!	88%
EASE OF USE Just point and click your way around.	92%
EDUCATIONAL VALUE Lots of potential.	92%
MACFORMAT RATING	89%

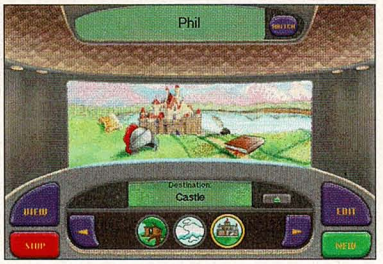
DICTIONARY FOR CHILDREN

Price: £24.95. Out: now.
Requires: LCII or better, 5Mb RAM, System 6.07 or better, 3.2Mb hard disk space, double-speed CD-ROM drive.
For more details contact Softline on 0181 401 1234.

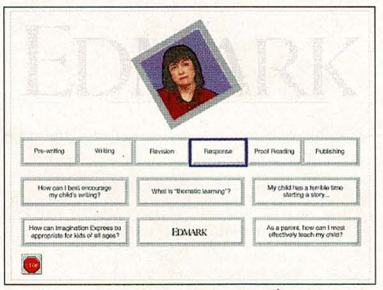
FEATURES Not just a list of words!	82%
EASE OF USE Pointing and clicking is the name of the game.	92%
EDUCATIONAL VALUE Hampered by being American.	75%
MACFORMAT RATING	79%

Imagination Express

Why should children have to suffer multimedia stories devised by adults? Why don't they create their own? We look at a package that encourages just that.



The front screen of *Imagination Express* and our destination today is the mediaeval castle.



This is Donna Stanger, Vice President of Edmark, explaining her approach to the teaching of writing.

Edmark are an American software house that pride themselves on consulting teachers and parents about the software they produce. Of course, teachers and parents across the pond will often view teaching and learning in a slightly different light from their British counterparts, and this has resulted in a number of packages which haven't transferred too well.

Imagination Express, though, has a number of things going for it. To begin with, it's aimed at teachers and parents who want to support children writing stories using words, sounds and images – this seems to be a point of common interest between the two nations. Secondly, it adopts a view of writing with which many British teachers will identify: writing as a process rather than an event. Thirdly, although some of the program draws on American life, this is not a central part of the package.

Essentially, the program enables you to create multimedia stories, in ways which are becoming standard for this type of software: there are predefined backgrounds, 'stickers', sounds and animations which you assemble in order to create your story. The difference with this package is that all of the elements of the story come on a CD-ROM with a theme: there are two in the package, Neighbourhood – with characters and backgrounds taken from American life – and Castle – with a flavour of mediaeval England.

The characters and objects in the package are very easy to manipulate: you'll get the idea from the pictures below. This means that there is little difficulty in experimenting with a page layout. Where this package scores over other software of its type is in the fact that the program automatically scales the object you are working with. Move an object 'forward' or 'backward' in the scene and it automatically gets bigger or smaller to fit within the scene. The objects can also be partially hidden behind other objects – useful for putting a character or object behind a window. This in-built ability to manipulate and place characters is probably the reason why you can't import your own pictures for use either as backgrounds or as characters or objects in your story.

The characters and objects in the package are very easy to manipulate.

You can either use the sounds provided or record your own. This means that you can not only add your own sound to a scene (reading the words, for example, or providing background music), but you can also attach sounds to objects and people – an interesting way to allow a group of children to make a collaborative story, by being one character all the way through the story.

One innovation in this package is a section for parents where Donna Stanger, an ex-teacher and Vice President of Edmark, appears on screen talking about aspects of learning with this package. It's a neat touch. It would be good to see more educational packages aimed at the home market adopting this intelligent approach – perhaps showing children using the package and talking about how they are learning.

Imagination Express is one of the better examples of this type of software. If Edmark were to release a number of CD-ROMs with English-based scenarios, perhaps tied to aspects of the National Curriculum, this would be a very good investment for any primary school.

PHIL MOORE

MORE IONA

Also available from Iona Software is the *Thinkin' Things* series. The original is a MACFORMAT classic (92%) and was reviewed in issue 15. Its successor *Thinkin' Things 2* was featured in MACFORMAT 25 and received an impressive 82%.

NEXT MONTH

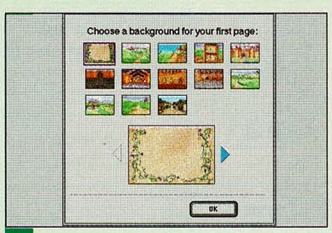
In the education section next issue, we look at a selection of language learning programs including *Apprenez Français avec Asterix*. For a translation you'll have to wait for next month.

IMAGINATION EXPRESS

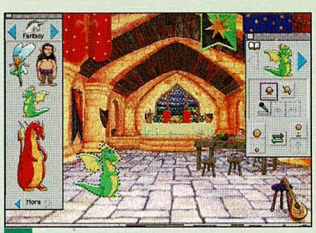
Price: £19.95. Out: now.
Requires: 256-colour Mac with 13-inch monitor or better, 8Mb RAM, System 7 or higher, CD-ROM drive.
For more details contact Iona Software on 0181 296 9454.

FEATURES Sophisticated graphics.	92%
EASE OF USE Very straightforward.	91%
DOCUMENTATION Hardly needed, but a little dense.	85%
EDUCATIONAL VALUE There is plenty of scope for classroom use.	85%
MACFORMAT RATING	87%

JUST USE YOUR IMAGINATION...

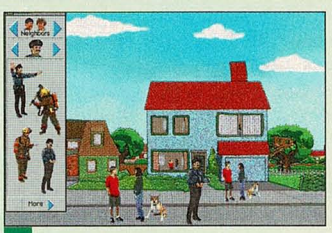


1 First, choose your background: each of the 13 shown here have variants, such as the same scene at night.



2 Add objects or characters. With the panel at right, you can change their size or orientation and record sounds.

3 Then add the words: you can choose from a number of scroll shapes, fonts and screen locations.



4 Yo! Here's a scene from the Neighbourhood CD: American as apple pie – and a far cry from dragons!

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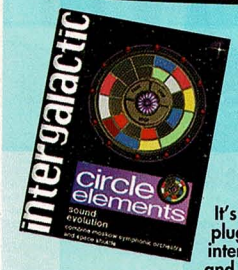

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There are 2 Circle Elements CD-ROM titles available so far. Each includes the software, plus:
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(To use Circle Elements you need either: a PC 386 computer or better & 4Mb RAM or better & Windows 3.1 & Soundcard 8/16-Bit & CD-ROM drive; or: MAC computer with 68020 Processor or better, & 4Mb RAM or better & CD-ROM drive).

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INTERACTIVE CD-ROMs

Of course the BIG NEWS on the interactive music front is the CIRCLE ELEMENTS CD-ROMs from Germany, but we also carry a range of the world's very best interactive entertainment & education titles: Here are a few examples (prices include VAT):

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Multimedia Strauss	£19.95 (Mac/PC)
Beethoven: 9th Symphony	£19.95 (Mac/PC)
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Makin Music

You want music? Ian Waugh wades through the biggest collection of music programs in the history of the known universe.

If you're interested in music there are lots of programs and utilities out there to play with. As well as commercial software there are dozens of Public Domain and shareware programs.

Makin Musik is an amazing collection of over 300Mb of material. In case you're wondering what happened to the other 300Mb a CD can store, it contains PC programs. The practice of combining Mac and PC software on one CD is becoming increasingly common. The main winners are those with both a Mac and a PC, but in this case, even those with one or the other get a lot of goodies for their money.

The CD is divided into six categories – MIDI files, MIDI Utilities, Music Modules, Commercial demos, Utilities and Akai samples. It's easy enough to open the folders to see what's inside but there's also a *HyperCard* browser which gives you a little information about the programs.

The MIDI Files folder is split into MIDI Files and MIDI Movies. The Files folder contains over 270 MIDI files. The range is vast, encompassing everything from classical music to jazz. There's some superb renditions of Jean-Michel Jarre tunes and a few rock and pop pieces (I hope they've paid their copyright royalties).

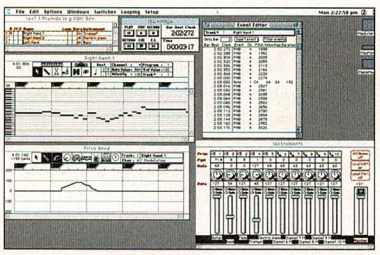
There's a fair bit of, er, rubbish here, too. Mickey Mouse as we call it, but the quantity more than makes up for the occasional lapse in quality.

The MIDI Movies folder contains over 250 of the MIDI files in QuickTime Movie format. Don't ask what happened to the other 20-odd pieces. You'll need the *QuickTime Musical Instruments* Extension to play them. Some sound terrific but others are just too much for the Extension, and the substitution of sounds it has to make doesn't do the files justice.

There 14 MIDI Utilities. Some are demos, oddly not in the Commercial Demo folder. Others are PD and shareware. Utils include *Kawai K4 librarian*, a program to store System Exclusive data, *MIDI scope*, which analyses MIDI data, and a program which splits data into two MIDI channels. They could have done better here.

There are eight commercial demos – *Cubase 2.5*, *DigiTrax*, *Encore*, *Finale*, *Mastertracks Pro*, *MusicTime*, *Audioshop* and *Soundmorph*. As with all demos, various bits of the programs are missing or disabled but they do provide the opportunity to try before you buy.

The *Makin Musik HyperCard* browser makes it easy to discover what's on the CD.



Makin Musik includes an excellent demo of the *Beyond MIDI* sequencer. All the features work but, unfortunately, saving has been disabled.

The Music Modules are divided into MED and MOD modules. There are 77 of the former and 172 of the latter. Modules are self-contained music files which include the sounds in the form of samples. There are several MOD players including *Sound Trecker*, which is currently the best for the Mac.

MOD files are very popular across several computer formats including the Amiga and PC, and *Sound Trecker* will load and play files produced on different computers. Most of the music is of a get-on-down type and a lot sound original. Enough here to keep your ears busy for a while.

Makin Music is an amazing collection of over 300Mb of material.

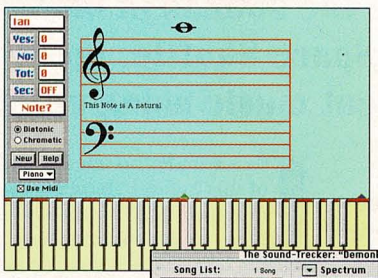
There are over 80 programs in the Utilities folder. Most are for manipulating samples rather than MIDI but other programs include tutorials, audio CD utilities, tracker programs, sound utilities and sample file players.

As well as all this, *Makin Musik* features a collection of almost 2,500 Akai samples in both 16-bit and 8-bit formats. They have been converted to the Mac's sound format so you can play them just by clicking on them.

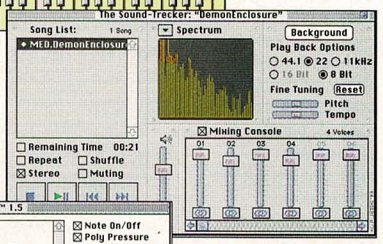
They cover virtually every type of sound you can think of from synth, drum and orchestral sounds thorough to animals, sound effects, some decidedly experimental sounds plus a few drum loops. These samples are not PD or shareware but you can use them freely in your own music.

If you enjoy messing around with MIDI and sounds, you'll find enough on this CD to keep you busy for ages. If you're into samples, then the Akai collection alone is almost worth the price of the CD. **MF**

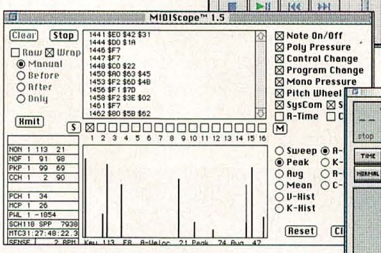
Your neighbours need never again complain that you are out of tune with the cat – tune your guitar with *Guitar Tuner*.



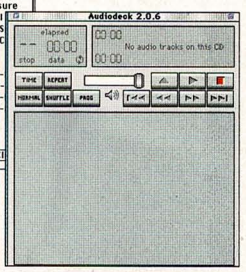
Can't read music but would like to learn? You can with the *Big Note Music Speller*, suitable for all ages.



Sound Trecker is probably the best of Mac MOD file players. Its facilities are legion and you'll find it on the *Makin Music* CD.



MidiScope, written by Kurzweil, tracks and records those MIDI bits and bytes other programs prefer not to display.



Tired of the AppleCD Audio Player? Then try the smart high-tech *Audiodeck* to play your audio CDs. Just like the real thing.

MAKIN MUSIC

Price: £24.99.
Requires: Any Mac with a CD-ROM drive, System 6 or later.
For more details contact CD Exchange on 01603 261060.

FEATURES 82%
A super collection of programs and utils for the MIDI experimenter.

EASE OF USE 89%
The programs vary in ease of use but it's a doddle to navigate around.

DOCUMENTATION 84%
The browser briefly describes each program's purpose but the on-line docs vary in quality.

VALUE FOR MONEY 92%
The programs are available from PD or the Net but would cost a fortune.

MACFORMAT RATING 89%

MORE INFO

To find out more about the *QuickTime Musical Instruments* Extension take a gander at the music pages in MACFORMAT 27.

Circle Elements

Combine the sounds of Moscow Symphony Orchestra and the Space Shuttle. Ian Waugh shows how you can make great music using nothing other than your Mac.

You can adjust the amount of memory set aside for the Mastertrack from the Setup window. It shows the amount of play time available for both 8-bit and 16-bit samples.

DEUX PIERRES

In 1948 Pierre Shaeffer and Pierre Henry developed a style of composition called Musique Concrète involving the arrangement of sounds through tape manipulations such as slowing down, speeding up, reversing and so on. This is considered by many to be the beginning of sampling.

It's a wonder no one has thought of this before! There are already dozens of MIDI building block files – drum patterns, bass lines, twiddly bits – which you can cut and paste in your sequencer to create or enhance your own music. Now you can do the same thing with samples. What's more, you don't even need a sampler! All the riffs and grooves are there ready to go.

Circle Elements is a sample-based song construction kit. You can play the music through your Mac's speaker or connect its audio output to a hi-fi for a bigger sound.

There are actually two CDs provided with *Circle Elements – Planet Earth* and *Intergalactic*. They contain the same program, but different sets of samples. There are over 1,000 samples on each CD. *Planet Earth* includes vocal sounds, chants, guitar riffs, animals, nature, transport, orchestral instruments and so on. The *Intergalactic* collection has categories such as analogue, bass, guitar, robot, voice, clockwork, space and ambient. Both CDs have a good range of drum sounds and drum loops.

This is the *Circle Elements* control panel. The main 'dartboard' image is made up of two sets of concentric circles, where the samples are loaded, mixed and then played.

Installation blues

The first thing you have to do is install the program on your hard disk. Put the CD in the drive and open it. There's no Install icon. Check the ReadMe file, open a folder and double-click on the correct file.

A minute or so later it asks you to enter a path/folder name. Path? This is because there's also a PC version of the program on the CD. Let's call the folder 'Circle Elements'. Whoops. Error. The program doesn't like that. Press **Esc** to cancel. I do, and the whole program quits.

I discover it doesn't like the space in the folder name. It doesn't like long names, either. So I try 'Circle'. It likes that and installs the files, taking just over 4Mb of hard disk space.

The program has one main screen with lots of buttons. It's not very Mac-like. Let's click on **Load**. This is one weird directory list. Circle is at the top. Double-click to open. CIRCLES appears. Double-click on that and I'm back to Circle. Double-click and I get CIRCLES. And so it goes on.

I accept defeat on this one and try out the **Help** button. This is much better. On-line, step-by-step help. 'Click on Load', it says and select the **GUITAR.CIR** file. OK, but where is it? Methinks there's more than a bit of PC in this program. I eventually discover it in the Circle folder on the CD. And I eventually get things sorted out, run through the tutorial and get into the program. At last!

Going loopy

The basic principle is simple but effective. The main window contains two sets of concentric circles into which you load sound samples or Elements.

Click on the **Loop** button and the samples play in order as the play routine runs around the circle. There are two circles so you can make two sets of samples play at the same time. The outer track is called the Mastertrack and it governs the length of the samples on the inner track.

If you load a two second sample into a segment on the outer track and a five second sample into the inner track, on playback the inner sample will only play for two seconds. You can create some really interesting stuff this way by truncating samples.

If you've worked with samples br-fore, you may be wondering how to make two samples play in sync. For example, how do you make sure that a drum loop and a bass loop play at the same tempo?

Unless the samples were recorded at the same tempo, you can't. The way to alter the speed of a sample is to run it through a high-powered processing function called time-stretch. This is major league and not supported here.

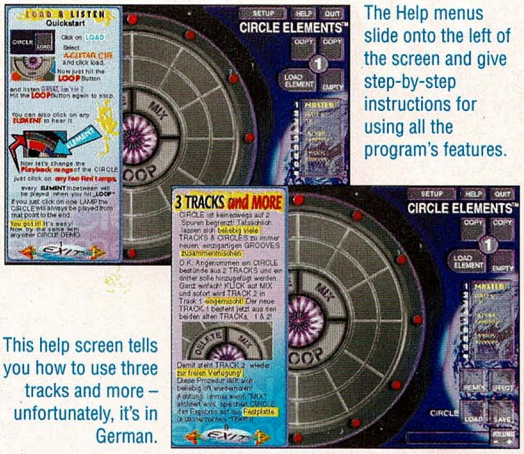
But the designers have thought of this problem. There are folders on both CDs containing loops programmed at various tempos ranging from 80 to 160 bpm. To make sure the loops play at the same speed, select them from the same folder.

CREATE YOUR OWN SONG WITH CIRCLE ELEMENTS

Creating your own songs with *Circle Elements* is incredibly straightforward. First, click on the **Load Element** button (top right hand corner of the screen)...

Select an AIF sample file from the list, then click on the **Load** button (bottom right hand corner of the screen). You can listen to the samples prior to loading.

Continue loading Elements in this way until you have created your first track. Then click on the Track-Selector to select Track 2.



The Help menus slide onto the left of the screen and give step-by-step instructions for using all the program's features.

This help screen tells you how to use three tracks and more – unfortunately, it's in German.

Although the circle only has two tracks, you can layer more than two samples by mixing the two circles into one track. The mix is put on the outer Mastertrack and you can add more Elements to the inner track – and then you can mix that down and so on.

But there's more. Let's say you've got a good groove going but you've filled the circle. No problem. You can save the entire circle as a single Element, load it into just one segment of a new circle and carry on composing. Using these two features you can continue building up a composition almost indefinitely.

Saving graces

When you save a composition, all you save is pointers to the samples, whether they are on the CD or your hard disk. This is a very economical use of disk space. However, when you perform mixes, these are also saved to your hard disk, so if you combine a lot of samples, be prepared to donate some serious hard disk real-estate.

The CDs actually contain three sets of samples. One is CD quality – 44.1kHz sampling rate and 16-bit resolution. Another was recorded at 22kHz and 8-bit resolution, and the other is a set of WAV files, the format used by Windows on the PC. The Mac system can only use the first two formats, which are AIF files. All three contain roughly the same samples, so Mac users are not losing out.

You aren't limited to the samples on the CDs – you can load any AIF file into the program. Just be sure you don't move it or the program won't be able to find it.

There are a few other useful features, too. You can adjust the volume of each Element and apply an effect to it. There are ten pre-programmed effects ranging from chorus to delay. This enables more customisation. There's a Remix function which randomly moves the Elements around the segments.

Slow starter

We got off to a slow start, the program and me, so is it worth the effort?

Absolutely! You don't need any music performance skills to use it, just a good ear. The samples are varied enough to enable you to produce music in a wide range of styles from House and Rap through to Techno and Funk. The sort of sprawling and experimental sounds on the CDs make it particularly good for Ambient and Chill-Out music.

The user-interface leaves a lot to be desired. But there's a good reason for it – the program was written using Macromedia's *Director*, the high-end multimedia authoring program. That explains everything.

If someone took *Circle Elements* and rewrote it as a fully-fledged Mac application it would be superb. As it is, it's let down by its implementation, slowness and occasional tendency to lock up my Mac.

But it's great fun and highly recommended. Even if you don't know Middle C from the High Sea, you can still make great-sounding tracks with it. In fact, get your creative juices flowing and you can sound like a pro! **MF**

SAMPLING BASICS

When a sound is digitised it is analysed or sampled so many times a second. This is known as the sampling rate and the higher the rate the better the quality. Audio CDs use a sampling rate of 44.1kHz, which is 44,100 samples per second. As a comparison, a much lower rate of 22.05kHz is typically used in multimedia work. It's obviously not as good as CD quality but it is still more than adequate for general use.

The sample resolution can be defined as the fineness of the scale used to measure the samples. The higher the resolution, the more accurate the digitised representation of the sound will be. Audio CDs use 16-bit resolution, which gives virtually a true-to-life sound. Multimedia applications, however, tend to use only 8-bit resolution.

As a consequence, the higher the sampling rate and resolution, the more space is required to store the audio data. CD quality audio, for example, requires a staggering 5Mb of space for a mere one minute mono recording.

CIRCLE ELEMENTS

Price: £29.95 each, £49.95 double pack.
Requires: LC or better and 4Mb of RAM (Centris or better and 8Mb recommended) and a CD-ROM drive.
For more details contact Time and Space on 01442 870681.

FEATURES 82%
A complete DIY sample-based song construction kit although a few sample manipulation functions would be nice.

EASE OF USE 78%
Very un-Mac-like interface and a terrible directory listing, but easy enough once you get into it.

DOCUMENTATION 80%
CDs love on-screen help and these are helpful and attractive – but you can't beat printed documentation.

VALUE FOR MONEY 84%
An innovative idea plus excellent samples you can use outside the program.

MACFORMAT RATING 83%

UNTIL IT HERTZ

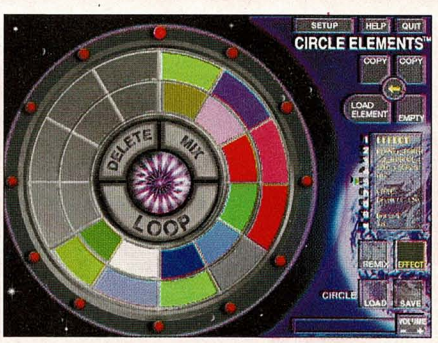
Mathematician Harry Nyquist proved that to accurately sample any sound you need only use a sample rate twice as high as the highest frequency that can be heard. As the average limit of human hearing is 15kHz, a CD's sample resolution of 44.1kHz should be high enough for even the best ears.

AIF MEANS

AIF is a suffix used by PCs to indicate an AIFF file, which stands for Audio Interchange File Format. It is a common sound file format used in multimedia and supported by most types of computer.

Load Elements into Track 2 in exactly the same way as you loaded them into Track 1. Each Element is then given a random colour.

Select an Element simply by clicking on it. It immediately changes colour and its details will then appear in the box on the right of the screen.

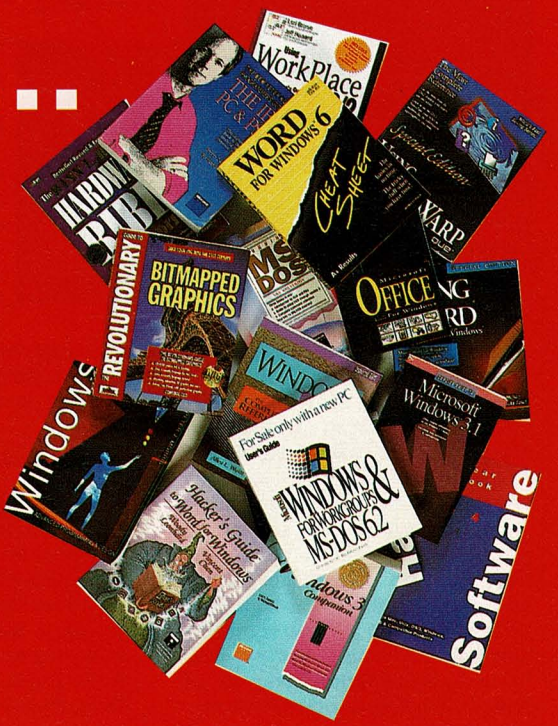


Click the Effect box and select an effect for the Element by clicking on a number to the left of the box. Now click on Loop to play your composition.

To get to grips with the PC you could...

...read through all these weighty tomes

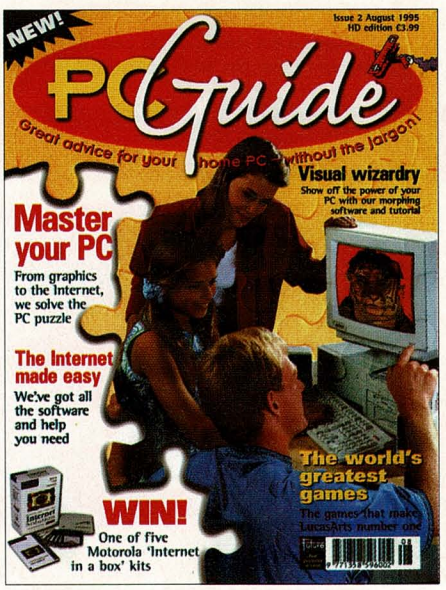
(and you'd become a complete computer bore)



...or you could just read *PC Guide*

(and people will still want to talk to you at parties)

You don't have to be a computer boffin to get the most out of your PC at home. Not any more. *PC Guide* is the first PC magazine on the news-stands which treats you like a human being. We don't load our pages with meaningless jargon. We don't overwhelm you with pointless technical facts. Instead, we offer straight-talking advice on using your home PC, explaining how to get to grips with the machine and exactly how you and your family can exploit it to the full. At last there's somewhere to turn when you want advice that makes sense.


NEW!
Issue 2 August 1995
HD edition £3.99
PC Guide
Great advice for your home PC without the jargon!
Visual wizardry
Show off the power of your PC with our morphing software and tutorial
Master your PC
From graphics to the Internet, we solve the PC puzzle
The Internet made easy
We've got all the software and help you need
The world's greatest games
The games that make LucasArts number one
WIN!
One of five Motorola 'Internet in a box' kits

PC Guide

Don't miss *PC Guide*,

BUY IT TODAY!

Issue two, on sale Thursday 13th July

SHAREWARE AND PD

It has been calculated that if you laid all shareware programs end to end, they'd stretch from London to the local post office. Derek Smith investigates...

There's no sex this month, but enough of my problems, here's the most interesting things wandering around the Internet. If the future interests you then read on. We have utilities that give you System 8 now, sort of... well, not at all really. But what we do have are a couple of tarot programs that can actually predict the future, sort of... well, not at all really. Hey, *SoundMaster* is good.

The Alien Language

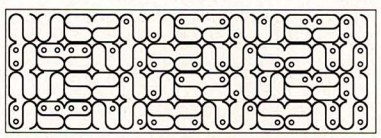
FONT

Postcardware

Shareware fonts on the 'Net have been a bit tame lately, but *Alien Language* is a rabid hamster of a font which recently caught my attention. Instead of boring things like letters, it contains some very futurist looking squiggles, like aliens might write – assuming an alien culture mysteriously evolved in parallel to ours, and also developed the leaky biro.

All the shareware featured here is on our covermounted CD-ROM

The letters join up to form patterns rather than words, and would grace the Mac of any individual who watches too much Star Trek. Pop this font in your System Folder and make it so.



Forget boring old letters, use *Alien Language* to liven up documents. Okay, it's not very legible, but neither are half the italic fonts around.

BootBlocker

SECURITY

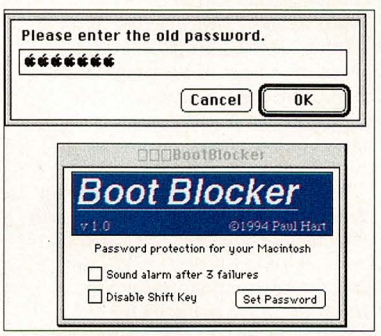
Freeware

This is yet another security program which asks you to enter a password when you switch your Mac on. Being a Control Panel, it faces the same problem that all shareware security programs do: if you start with the **[shift]** key held down, Control Panels don't load and you by-pass it. Great security for people with a broken keyboard, but rather lame otherwise.

BootBlocker is worthy of note because it does have an option to disable the **[shift]** key. Excellent. Unless you want a secure Mac but also often want to turn your Extensions off. Oh, what a difficult life.

There's also the small matter of booting from a floppy disk which gets round the problem too. The author doesn't pretend that it's a replacement for a commercial security package. Rather it's aimed at stopping curious children and meddlesome editors.

I tested *BootBlocker* for several days without a hitch, so if you want free security, I can recommend this utility.



BootBlocker's Read Me file tells you what the default password is. Of course, I did read the instructions before rushing ahead and trying it out. Honest.

Galatic Interaction

ASTRONOMY

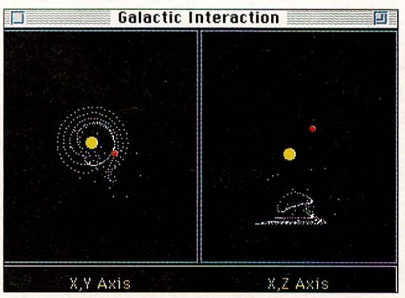
Freeware

One of my favourite pieces of shareware is a program called *Gravity*, which simulates the way planets interact. *Galactic Interaction* takes this a stage further and lets you play with whole galaxies. This is big time.

You start by designing your galaxy, adding a few stars here, moving a few planets there, then create your intruder. This is the heavenly body that's going to influence your galaxy.

The next thing is to set the simulation running, although the default settings are rather boring. The intruder floats around aimlessly, having very little effect on the galaxy. So your next step is to adjust coordinates, velocities and masses, then run the simulation again. And so you go on until you succeed in what everybody wants to do in the first place, bash a huge great meteor into the galaxy and watch it rip apart. Disappointingly there are no sound effects of worlds colliding, and a distinct lack of Alec Guinness telling you there's a terrible disturbance in the Force.

What you do get is a healthy bit of science, and it's quite good fun. I'm sure the mathematics behind it all is jolly clever, but it's slow and once you've smashed one galaxy apart, you've smashed them all. Worse still, when I tried to quit, my Mac crashed. I believe that's known as irony.



Galactic Interaction is all about putting two galaxies in a room, plying them with drink, and waiting for the inevitable fight. Loosely speaking.

TAROT TIMES

For the margin notes on the shareware pages this month, we asked ten people to seek sage advice from *DailyTarot (page 122)*. Some good advice here.

Continued on next page

CONFUSED ABOUT SHAREWARE?

■ **Shareware** is a form of 'try before you buy' software selling and it's a great idea so long as you're honest. When you get some shareware, the documentation file accompanying it will tell you how much it costs – typically it's somewhere between US$5 and $40 – and where to send your money. If you like the software and decide to keep it, then you're morally obliged to cough up. Not only do you get the satisfaction of boasting to friends about how honest you are, but the author will often give you something in return for registering, like a printed manual, or updates when released. The most common problem is sending money abroad, but as many shareware authors now accept credit cards, it's getting easier.

■ **Freeware** means that you don't have to pay for it at all. There are many derivations such as postcardware, which means you have to send a pretty postcard to the author.

But freeware is not strictly the same as **Public Domain** (PD) because although you don't pay for freeware, the author keeps copyright and you have to follow his terms and conditions to use the program. This often means keeping all the files together and not using or selling them for profit.

VINNY JONES

Be cautious of insecurities and racing toward a goal without taking others' feelings into consideration.

TAROT TIME

HUGH GRANT
Take inventory of what you own and consider your options.

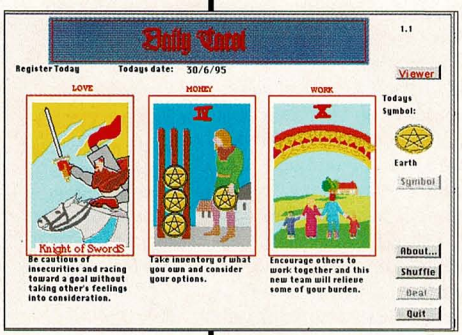
I recently came across a couple of tarot programs on the Internet and decided to explore them. The strange thing was that I knew I would find them. Hmm...

DailyTarot 1.1

FORTUNE TELLING

Shareware $15

What's the first thing you do when you switch your Mac on in the morning? Check your e-mail? Consult your appointment keeper? Play a game of *Marathon*? Personally I go and make a cup of tea whilst *Word 6* is opening up.



Shareware tarot programs like *DailyTarot* are a great idea. Anyone gullible enough to believe in tarot is probably gullible enough to pay up!

Perhaps this program may change your daily habits. Simply open it up, shuffle the cards, and deal yourself a dose of mystic prediction. Three tarot cards are dealt, representing love, money and work, theoretically the three most important aspects of life (shame there's not an option to edit these – I'd change love for TV).

Beneath each card is listed its meaning for that day. On my first attempt I was recommended to ask for a raise or look for a new job. I promptly walked into my publisher's office and asked for a pay rise. He suggested I look for another job. Wow, guess he must be using the same program.

For those desperate to load the responsibility of their life onto someone or something else, this should be ideal. Okay, you have to pay about a tenner, but think of the money you'll save on buying newspapers to read the horoscopes, or calling those premium rate phone lines.

TarotWorks 1.1.4

FORTUNE TELLING

Shareware $25

If *DailyTarot* is the quick fix for horoscope addicts, then *TarotWorks* is a complete drugs shipment. When you first open the program, you are presented with a comprehensive tutorial about tarot, and why the Mac is particularly suited to it. Much better than a PC of course. Let's face it, Macs do everything better (and that includes crashing).

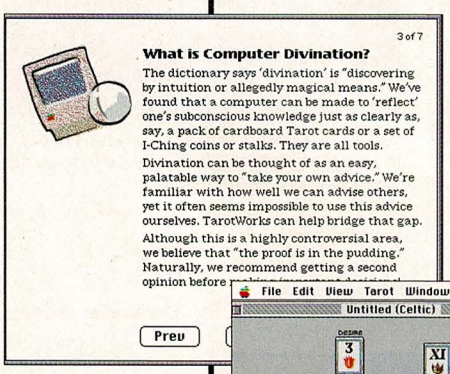
Next you are prompted for a question to ask the stars, or the ether, or whatever. I tried 'Do you think a beard would suit me?' I was told this required a yes or no answer and should try a more general question, so I asked about the prospects for the English cricket team.

You are now instructed to think of nothing whilst a grey bar snakes across the screen as the program calculates the answer. My untrained mind wandered and thought about hamsters and clotted cream, but I think I got away with it.

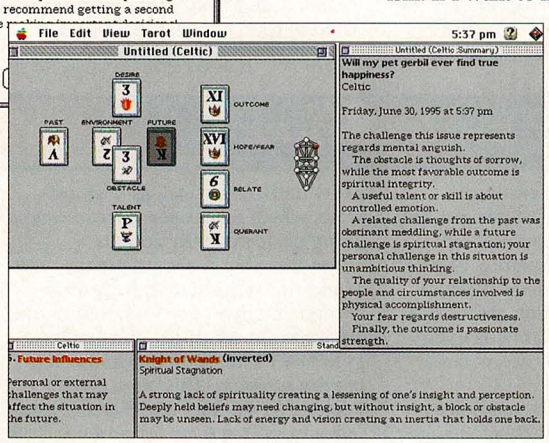
You are finally presented with ten tarot cards and the meaning that each one has. There's also a summary of what all the cards combine to say about your question. Unfortunately the omens were not good for Mike Atherton. Bizarrely, there is an option to edit the question once you have got the answer, so I swapped the word English for West Indian, and hey presto, home victory is assured. A very good example of the silliness of the whole thing.

With extensive documentation, online help, and plug-ins to extend its usefulness, this oozes professionalism. If I want to know the future, I live it, but if you really are interested in this stuff, *TarotWorks* seems a pretty definitive tarot program and is worth the money.

HUGH GRANT (AGAIN)
To be with that certain someone may mean giving up your old ways.

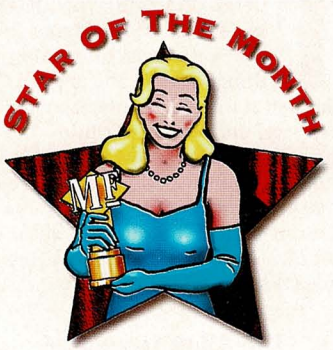

3 of 7
What is Computer Divination?
The dictionary says 'divination' is "discovering by intuition or allegedly magical means." We've found that a computer can be made to 'reflect' one's subconscious knowledge just as clearly as, say, a pack of cardboard Tarot cards or a set of I-Ching coins or stalks. They are all tools.
Divination can be thought of as an easy, palatable way to "take your own advice." We're familiar with how well we can advise others, yet it often seems impossible to use this advice ourselves. TarotWorks can help bridge that gap.
Although this is a highly controversial area, we believe that "the proof is in the pudding." Naturally, we recommend getting a second opinion before
Prev

TarotWorks proposes that your Mac can read your subconscious. A very worrying prospect. No wonder mine keeps crashing.


File Edit View Tarot Window
5:37 pm
Untitled (Celtic)
Untitled (Celtic Summary)
DESIRE
PAST
ENVIRONMENT
FUTURE
OUTCOME
HOPE/FEAR
OBSTACLE
RELATE
TALENT
QUERANT
Will my pet gerbil ever find true happiness?
Celtic
Friday, June 30, 1995 at 5:37 pm
The challenge this issue represents regards mental anguish.
The obstacle is thoughts of sorrow, while the most favorable outcome is spiritual integrity.
A useful talent or skill is about controlled emotion.
A related challenge from the past was obstinant meddling, while a future challenge is spiritual stagnation; your personal challenge in this situation is unambitious thinking.
The quality of your relationship to the people and circumstances involved is physical accomplishment.
Your fear regards destructiveness.
Finally, the outcome is passionate strength.
Celtic
Future Influences
Personal or external challenges that may affect the situation in the future.
Knight of Wands (Inverted)
Spiritual Stagnation
A strong lack of spirituality creating a lessening of one's insight and perception. Deeply held beliefs may need changing, but without insight, a block or obstacle may be unseen. Lack of energy and vision creating an inertia that holds one back.

Ask *TarotWorks* any question and it will provide you with an answer. If you don't like its response, simply change the question!

LIZ HURLEY
You may discover secret motives or old truths about a loved one.



PrintChoice 1.4

UTILITY

Shareware $14

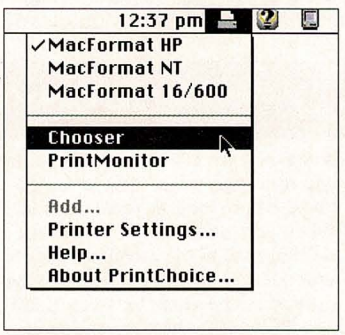
One thing that Apple haven't updated for a while is the Chooser, so it can be a hassle changing printers. System 7.5's QuickDraw GX helps, by creating drag and drop printing, with individual printers having their own icons on the Desktop. The problem is that QuickDraw GX requires tons of RAM.

PrintChoice may be the solution. It adds an extra menu to the top right hand corner of the Desktop which can be used to launch the *PrintMonitor* or the Chooser. It has the ability to add any printers on the network to the menu. This means you can switch printers by choosing them from the menu, bypassing the Chooser. Handy if you need to change zones on a network to find a printer.

Once they're added to the menu, you can create a file for each printer. Double clicking one of these files changes printers for you, making it even easier to switch. If you drag a file onto the icon of a printer, it will launch the application that created the file and bring up the print dialogue box for you.

There's nothing revolutionary here. But until the new version of the LaserWriter driver comes out, this makes printing even easier.

One warning: I moved the Chooser to *PrintChoice's* menu rather than the Apple menu. When I finished looking at *PrintChoice* I removed it from my System Folder and restarted, to find the Chooser missing from the Apple menu. Remember to use *PrintChoice* to put it back before you de-install it.



PrintChoice adds a new menu which enables you to switch printers without having to use the Chooser.

Copland WDEF

FINDER UTILITY

Freeware

Have you heard of Copland? It's the codename for System 8. It's new, it's exciting, and it's going to be a ages before it arrives, because it's only just reached alpha testing.

However, there are plenty of people who can't wait, judging by the number of shareware items to make your Mac look as if it has Copland now. Most of these are icons. Some come in *ResEdit* flavour for you to hack into your System software. Others are simply for you to copy and paste onto your existing folders.

If you want to be a Power-Nerd, you'll want your windows to look like Copland's windows. Or at least what Copland's windows might look like. Of course, it won't have all the functions, but hey, never mind, it *looks* like them.

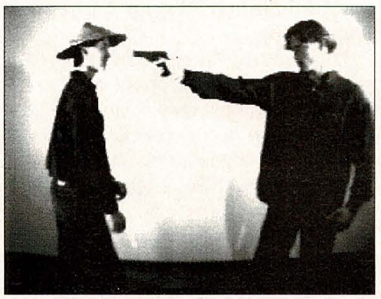
Pop the *Copland WDEF* Extension into your System Folder and restart. Voila, windows look different and have the odd extra feature such as the ability to drag them using a wrap around border, rather than just the title bar. However, the documentation tells you not to use these new extras because they don't work properly.

These pieces of shareware will be welcomed by the sort of people who fit bull bars to their cars because they look nice. Despite the fact that they are totally pointless.

Still, if you want to pretend that you have Copland, this may be your best bet. After all, Windows 95 in so named because it is due out later this year. So does this mean that MacOS 1 is due out in 2001?

Face of the future? Copland's windows and icons will probably look something like this. I'm so thrilled I could eat my mouse.

If you start to see pink rabbits walking across your Mac screen, you're either running *NetBunny*, or you should get some rest.



NetBunny 2½

NETWORK UTILITY

Freeware

Do you remember the pink bunny that plays his little drum while advertising Duracell batteries (unless you live in America, where the same bunny advertises Duracell's arch rival Energiser, but not a lot of people know that)? Well, that same pink fur-coat-in-waiting has turned up on the Mac, if you have a network.

The idea is to pop this Extension into the System Folder of a collection of networked Macs (or should that be a flock of Macs, a Desktop of Macs, an orchard of Macs...?). You then launch the accompanying program from any one of those Macs and click on the **Energise** button, for reasons that you now know.

The aforementioned rodent waddles across the bottom of the screen of one Mac, and onto the screen of the next, bashing his little drum. And so it goes on. And on. And on. Until you really wish you hadn't started. It's hard to see the exact point of this, other than a great way of annoying colleagues, but I suppose that is reason enough.

Vic Kombat 4.1

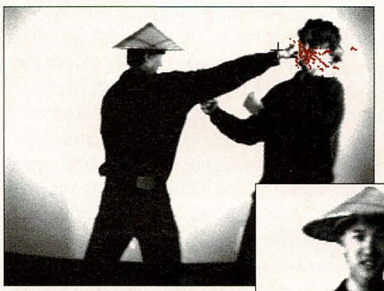
VIOLENCE

Shareware $10

This game adds another newt's eye to the cauldron of debate over violence on the Mac. The concept is simple. You view two digitised combatants facing each other, standing in that distinctive way which you do when you're trying to look like you know martial arts... but you don't.

If you click on your opponent's body, you kick him in the stomach; click on his head, and your man punches him there. You're rewarded by the sort of punching sound that people who have never punched, but have watched lots of films, think it would sound like... but it doesn't.

Punch and kick him enough times before he does the same to you, and you win. You can also block your opponent's attacks by clicking on your own man, and as the Read Me file tells you, this means that the game isn't simply a case of beating your opponent, you need to use defensive tactics as well. Unfortunately, like all games in this genre, you ignore tactics and just click furiously on the opponent, meaning the game tries to be interactive... but it can't.



Vic Kombat offers fun and violence for all the family. I remember the days when people went for walks. Give me violence any day.

The unregistered version lacks one critical feature in my book, that of fatalities. At the moment, when you pummel the opposition into defeat, you just move on to the next round. In the registered version you get to see a scene of gratuitous violence that might have been directed by Michael Winner... but it wasn't.

If you fancy kicking sand in someone's face, or rather, kicking someone in the face, then this is very much the game for you. I could play this for hours... but I won't.

Sound Toy

MUSIC

Shareware $10

I tried to learn to play the piano once, but eventually gave up because I couldn't work out how you plug it in. For those people with a similar musical bent, *Sound Toy* might be your best chance of making sweet music.

On opening the program you are presented with a 5 x 5 grid of squares. As you move the mouse pointer over the squares, each one makes a distinctive musical sound of its own, often reminiscent of a country and western style. By moving the mouse around and activating these chords, you can play a tune, of sorts.

You can have a background loop playing, which doesn't help much but makes more noise, which adds to the cacophony, and therefore the fun. Hey presto, without any formal training, you can produce an awful noise. Don't get me wrong, this is not a criticism of

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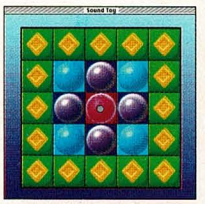
JOHN MAJOR

The time might be right to rely on blind faith to deliver the answer to your questions.



Sound Toy may indeed be a toy, but then we are all children at heart, so give it a go.

Continued on next page

the program. What you are doing is having fun and producing a racket, not writing a hit single. Mind you, then again...

Journal Writer v1.21

DIARY

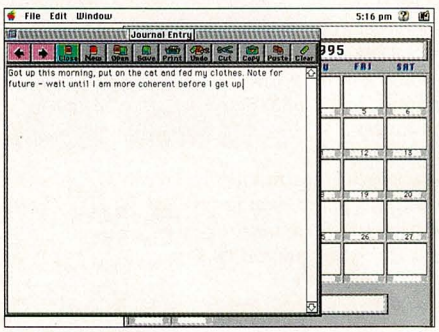
Shareware $15

IMELDA MARCOS

Today is not a good day to make judgments about money. Refrain from impulse buying.

Computer porn fascinates me. No, not in that way. What fascinates me is why people bother to spend ages to download a fuzzy image of a naked woman (or man), when they could go to the newsagent and buy a magazine full of better quality pictures. The point seems to be that it's somehow better because it's on a computer screen. For instance, many people prefer watching quarter screen size jumpy QuickTime movies, rather than renting a full-screen video.

Because of this bizarre phenomenon, *Journal Writer* might just stand a chance. It's basically a diary program, rather than an appointment keeper. In other words, you wouldn't use it to remind you when the mother-in-law's birthday is, but rather write about the wild party after it has happened.


File Edit Window
5:16 pm
Journal Entry
Got up this morning, put on the cat and fed my clothes. Note for future - wait until I am more coherent before I get up
FRI
SAT

Journal Writer enables you run a daily diary, unless you're a farmer, in which case you could run a daily dairy.

For this purpose it's all right, but lacks any frills or features. The most basic function would be a find command to help you search for a word, but it lacks even that. If you want to keep a diary and prefer a monitor to old fashioned paper then this is worth further inspection, although I doubt it is worth the money.

IAN PAISLEY

Avoid arguments, watch, listen and learn. Isolate and recognise your own truths.

Of course, you also have the problem of people booting your Mac and reading your journal. I suppose this is a good reason to use *BootBlocker*. At least with a paper version you could hide it under the bed to stop people reading it. Mind you, that's where I keep my stash of magazines.

SoundMaster 1.8.1

SOUND

Shareware $15

DEREK SMITH

You may be wasting a lot of your talents by doing the job that you are currently doing.

SoundMaster is one of the best known shareware programs, and not without cause. Whenever your Mac wants your attention it lets out a little beep, which can be changed from the Sound Control Panel.

SoundMaster enables you to allocate sounds to any actions, such as emptying the Wastebasket or pressing **[return]**. There are lots of shareware sounds around that can be used – indeed, we regularly feature some on our CD. Just imagine the fun derived from your Mac saying 'Bye handsome' every time you shut down. Um... not that mine does, that was just a theoretical example.

If you can't find the right kind of sound in shareware then you can record sounds directly into it, using a microphone plugged into the sound-in port. This will lead to people up and down the country carrying Macs connected to extension leads into toilets to record flushes. Ideal for **Empty Wastebasket**.

This Control Panel is blindingly easy to use and soon you'll have a Mac with a sound for every occasion. The problem now occurs that every time I insert a disk I have to wait for the sampled sound of an elephant burping, until I can proceed.

Even if this doesn't bother you, beware if you work with other people around you. It very quickly gets more annoying than the ditty at the end of Pentium processor adverts. And that's saying something.

But if you work alone, or you are a typist in an office for the National Deaf Association, this is great fun and is an ideal way to personalise your Mac.

Change your Mac into an all singing, all beeping mean machine with the excellent *SoundMaster*.

Mantra 1.02

GAME

Freeware

This is yet another Dungeons and Dragons game, notable only really for being free. Dungeons and Dragons, for the uninitiated, is a role playing game involving a small band of people, often adults, gathering in a darkened room pretending to be elves and wizards, battling each other with dice. Although ever so slightly sad, it does involve human interaction.

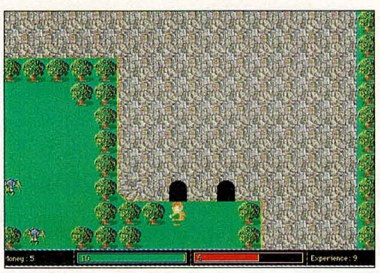
The computer versions also enable you to pretend to be an elf, but this time all by yourself, tucked away in a dark little room so that you don't need to do anything as complicated as meeting people.

In *Mantra* you play the part of Saric, who works for a chap called Kish. It's an interesting fact that of all the role playing games I've seen, no-one is ever called Dave, or Mike. Anyway, you are washed up on the shores of an unknown land and need to explore to find your way home.

The island is full of monstrous spiders, awesome snails and terrifying red blobs. Armed with your dagger, you can try to poke these things to death, although they tend to kill you first.

You'll need to find keys, hidden doors and secret passages, in order to make progress. It's not terribly exciting and the controls are very fiddly, but at least you can save your position at any time, so it's a case of constantly replaying bits trying to do it properly. It did at least keep me amused for a couple of hours, a lot more than can be said for my wife lately.

This certainly isn't earth shattering and I'm glad to see the authors are sensible enough not to ask for any money. At least this way they end up poor rather than disappointed.



Want do you reckon. Should I go into that hole or should I stand out here waiting for something to happen? Hmm, looks kinda dark...

WHERE TO FIND THEM

We often get calls from readers who want to know how to get hold of some of the shareware reviewed in these pages. Well, here are some of the methods:

1. Buy the CD-ROM edition of MACFORMAT: all the shareware we review in each issue is on there in a separate folder. There's also loads of other shareware on the CD-ROM every month, sorted into separate categories for you.

2. Write to a shareware dealer; there are several who advertise in the back of MACFORMAT. The dealer should have the program you're after, especially if he subscribes to our CD-ROM edition!

3. Use the Internet, if you have access. One of the best sources around is Imperial College at **src.doc.ic.ac.uk.** Use ftp to connect (login: anonymous; password: your e-mail address) and cd to computing/systems/mac. Personally, I use the umich directory, but sumex is fine as well.

4. Local user groups often have libraries of shareware, so see if you have one near you. There are some listed in our Reader Ads section (have a look on page 140).

Finally, wherever you get your shareware, beware of viruses. At the moment, *Disinfectant 3.6* (on MACFORMAT 26's cover disk and CD-ROM) is the best and cheapest way of staying safe.

Photoshop hype?

Photoshop is acclaimed as the industry standard-setter for image manipulation software. A MACFORMAT reader dares to doubt the omnipotence of Adobe.

Tell me it's not just me, please. We all know the Mac is the best. An all-round quality machine. It has professionalism stamped all over it and that was why I wanted one from the very beginning.

Ten years ago though, I couldn't afford one, so I bought an Amiga and successfully used it for five years. Then prices came down and a Mac was mine! But five years on, I feel I must write, not to complain, but to admit that I don't understand something.

It's to do with graphics, *Photoshop* in fact. Everybody agrees that this program is the best you can get. There's no doubt about it. Top of the range. The cutting edge, the professionals' choice etc, etc. So am I the only one out here who has doubts?

Now I must be careful in my criticism. When it comes to features such as four colour separation, colour composition, a rock steady screen and beautiful filters, to name but a few, it cannot be beaten. But, oh God, there are bits of it, well, most of it, that are positively ancient.

I know that we have a Mac mag here, but let me digress. The number one paint program on the Amiga is *Deluxe Paint 4*. It is so easy to use – and I'm being completely serious now – it makes *Photoshop* feel like DOS. Totally unfriendly. I am still amazed at what we have to do in *Photoshop* in order to put paint on the screen. Define this, select that, pull down this menu, push this radio button, click this option, save this selection, double click on this and remember that!

And it isn't just Adobe. I actually laughed out loud when I read about the new ground breaking 'Image Hose' in *Painter*. *Deluxe Paint 1* was doing that ten years ago *and* we didn't have to go through such a performance to load it with a pattern.

But why? I estimate that about 90% of *Deluxe Paint*'s features are easier to use than *Photoshop*. Not only easier but quicker too. I know I can achieve effects (without filters) in *Deluxe Paint* that *Photoshop* still hasn't even dreamed of. I have in front of me seven books about *Photoshop*, along with their CDs, and, after three years, I'm still not winning. Tell me it's not me, please. *Photoshop 3* is better, but it's so much work!

It may not be fashionable to say this, but I have this feeling that we are being conned. All of us. Adobe and the like have us where they want us and we have to meekly take what they dish out. Perhaps it is political within the companies. I don't know.

I do know though that if Electronic Arts got its act together and produced *Deluxe Paint* for the Mac, *retaining its format* while upgrading to 24 bit colour, four-colour separations and with filters, then it would knock *Photoshop* right off its pedestal.

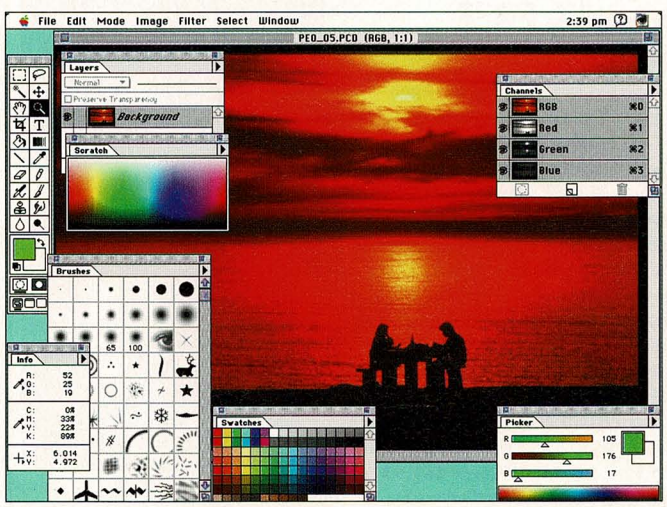
What I never liked about *Deluxe Paint* was due to the Amiga – its only allowing 16 colours in high resolution, for example. The program itself for ease of use and versatility was exemplary.

Tell me it's not me, please.

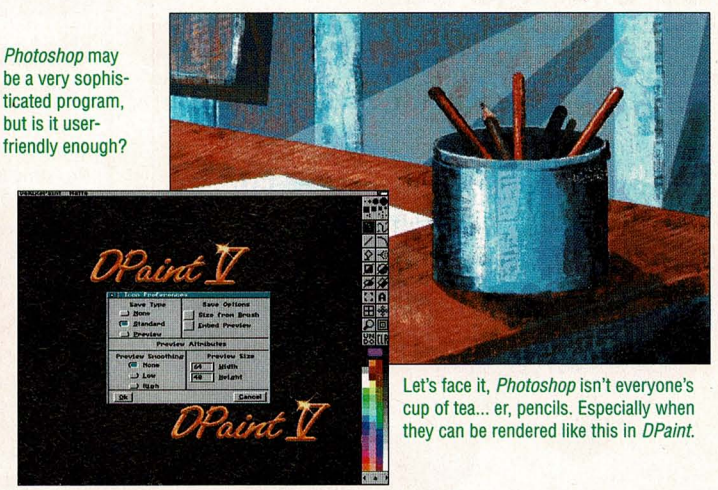
Douglas Havin
Essex

FINAL WORD

The opinions on this page are those of the authors, not necessarily those of MACFORMAT or Future Publishing Ltd. If you have something to say, write to 'Soapbox', MACFORMAT, 30 Monmouth Street, Bath, BA1 2BW. ASCII text on a disk would be nice, but it isn't essential. We reserve the right to sub-edit your letter, but won't alter the sense of any opinions.



Photoshop may be a very sophisticated program, but is it user-friendly enough?



Let's face it, *Photoshop* isn't everyone's cup of tea... er, pencils. Especially when they can be rendered like this in *DPaint*.

The ease of use of top Amiga paint program *Deluxe Paint 4* makes *Photoshop* feel like DOS!

WHILE WE'RE TALKING ABOUT THE GOOD OLD DAYS...

I am an architect, and in a dim and distant past life I worked for a company with a steam powered Apple II – yes, that's right, I am talking pre-Macintosh. You put coal in, first thing in the morning, and by tea break it was ready to do 3D graphics with one of them new-fangled CAD programs.

More often than not, it was quicker to actually draw things yourself, so the Apple ended up being used for other utility programs. Architects have a multitude of other things to do with a computer – like calculating heat losses, sizes of steel beams, etc etc – and knowing this, Apple themselves had a directory of programs available for their machines.

Some 15 years on, I find myself running my own small company with a Macintosh on my desk, and I would like to use it for these 'other things' – but try as I might I cannot find any of the sort of programs I am after (without spending a fortune on bells-and-whistles 'suites'). Surely the latter day programmers didn't just pack it in when the Mac was released. There must be some relevant programs still available, but where?

On a related topic, info about simple 'put numbers in and get different numbers out' programming would also be helpful, as with a little help I could probably write some of the utility progs I need myself.

Steven Lines
Design Lines Architects
Cullercoats, Tyne & Wear

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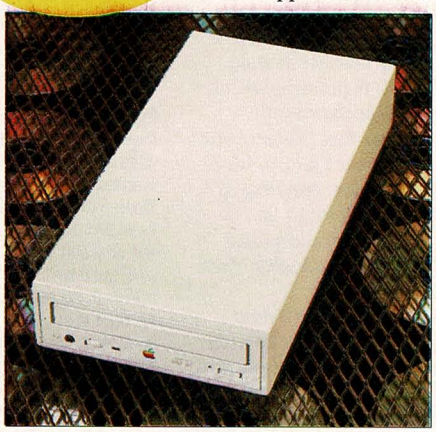

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Exclusive

Vistapro with FREE Distant Suns

Vistapro is a virtual landscaping package and MACFORMAT Classic to boot! We gave it the thumbs up in issue 15, with a well-deserved 90%. It enables you to create your own three-dimensional landscapes, for use as backgrounds or simply for the sheer joy of it. Requires: a colour Mac running System 7, with at least 4Mb of free RAM.

Together with *Vistapro*, we're able to offer you a *free* copy of the multimedia title *Distant Suns*. An essential guide for the desktop astronomer, it displays over 255,000 stars and 2,000 galaxies and normally retails at £39.95.

Vistapro and Distant Suns bundle

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A must for techies and Next Generation Trekkers everywhere. A beautiful QuickTime VR video-clip tour of the Enterprise, narrated by William T Riker (Jonathan Frakes). Investigate the bridge, crew's quarters, transporter room – or view the outside of the ship from space! Schematic diagrams and text give masses of information on all the fictional technology you encounter. An excellent and innovative CD-ROM that brims over with fresh ideas.

Star Trek Interactive Technical Manual
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MACFORMAT Tornado Fax Modem Offer

Sad? Lonely? Bored? Your Mac could be your passport to popularity and social acceptability – if only you had a modem as well! You could communicate with Bulletin Boards, send and receive e-mail, join discussion groups, download all the latest shareware, even surf the Internet. With a fax-modem you can send faxes direct from your Mac and receive them straight on your Desktop.

The Tornado fax-modems from Electronic Frontier are sturdily built, with metal cases rather than the fragile plastic you commonly find. They are both super-efficient, super-fast, BABT approved modems and are fully Hayes (industry-standard) compatible. They have auto-dial and auto-answer, plus data compression built-in. They come complete with all the cables you need, plus *Delrina Fax Lite* software. And best of all, we can offer them at very affordable prices!

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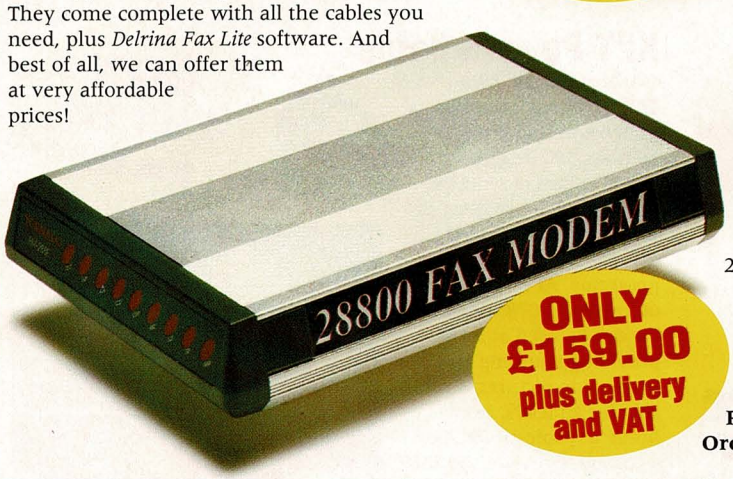

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Internet Starter Kit

This is the second edition of this indispensable guide to everything you need to know about using the 'Net. The book comes complete with The Internet Starter Kit disk, which is packed full of useful software. Inside you'll find practical guidance on how to get the most from the 'Net without going bankrupt, and where to look for all the latest info.

Internet Starter Kit
second edition
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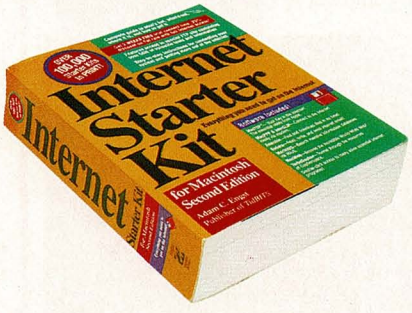


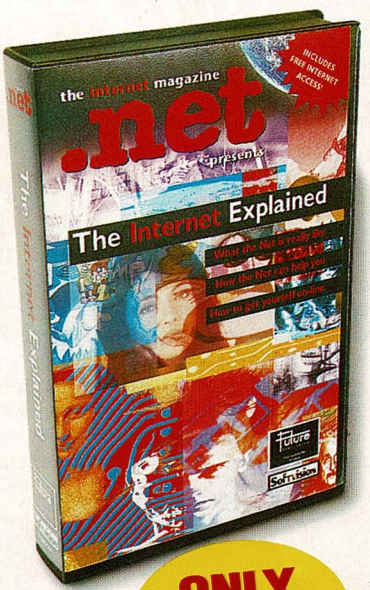
The Internet Explained Video

You've read about the Internet, now discover what the Net is really like with this *new* video. The experts from MACFORMAT's sister magazine *.net: the Internet Magazine* explain how to get your computer on to the Net and what's out there when you get on-line. Everything is explained clearly and easily, including:

- What the Internet is
- How it can be used
- What's out there, and how to get at it
- What hardware you need to get connected
- How to choose a service provider
- and much more

It's almost like having an expert by your side as you learn and explore – soon you'll be impressing your friends down the pub yourself! (Or boring them senseless...)

Produced in Association with Softvision
The Internet Explained video
Price: £19.95
Order code: FLV9501



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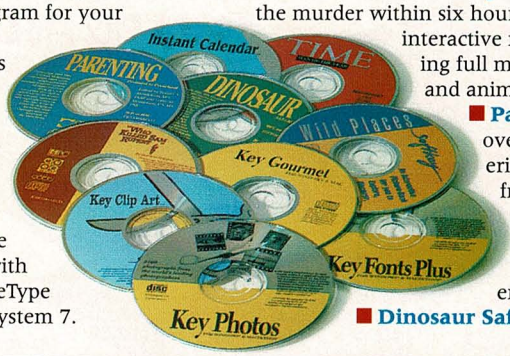

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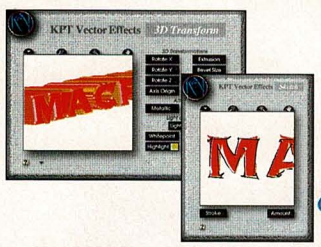

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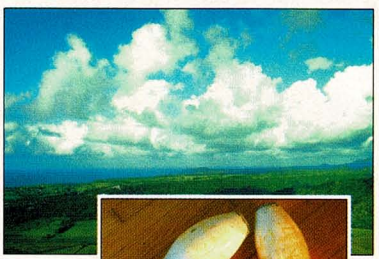

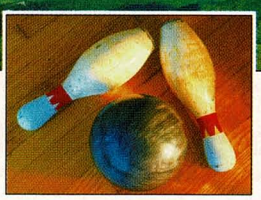

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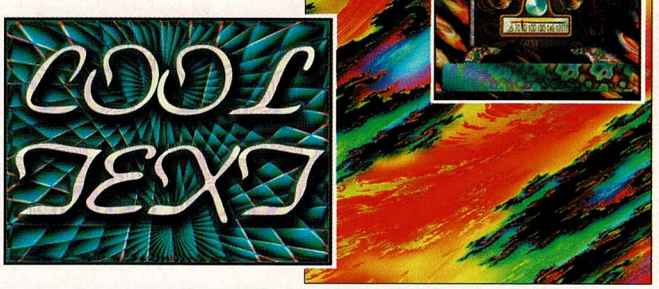

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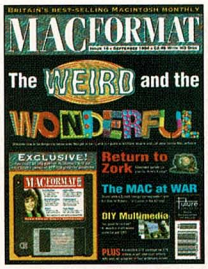

ISSUE 16

September 1994

■ **On the disk:** *ColorStation 2* and *HomePublisher* demos

■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available

■ **Inside:** Our guide to weird Mac software; plus reviews of *Multimedia Workshop, HomePublisher* and *Return to Zork*; plus a foreign correspondent's Mac story

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ISSUE 17

October 1994

■ **On the disk:** *Crunch 2.0* and *Conflict Catcher* demo

■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available

■ **Inside:** Discover how to future-proof your Mac with our top add-ons; reviews of *Sensory Overload, Wrath of the Gods* and *WordPerfect 3*; plus *Ritz Payroll*

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ISSUE 18

November 1994

■ **On the disks:** Internet software bundle; troubleshooting utilities

■ **On the CD-ROM:** *ClarisWorks 2.1; Rebel Assault* and *Sensory Overload* demos; 200Mb of utilities

■ **Inside:** How to beat those startup problems; plus *Norton Utilities 3* vs *MacTools 3;* plus review of *ThemePark*

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ISSUE 19

December 1994

■ **On the disk:** Hot action with *Wolfenstein 3D; Kid Pix*

■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available

■ **Inside:** The lowdown on accelerators; the 20 top Mac games; SCSI trouble-shooting; *IntelliTalk*; OCR user guide plus Internet books reviewed

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ISSUE 20

January 1995

■ **On the disk:** Build worlds with *Fractal 1.2; Maniac 2.1.1; RAMDisk+ 3.23*

■ **On the CD-ROM:** sorry, CD-ROM edition is no longer available

■ **Inside:** Virtual reality special: *KPT Bryce* and *Star Trek Tech Manual*; *Word 6* versus *Nisus Writer;* how to write games for your Mac

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ISSUE 21

February 1995

■ **On the disks:** *VideoShop 2.0*; plus 3Mb of games and utilities; *Trojka; WordSmith*

■ **On the CD-ROM:** Demos of *Premiere 4.0, Marathon, Ghosts,* and *Star Trek: TNG, Technical Manual*

■ **Inside:** Video editing on Macs: how to do it; plus budget games; and what to buy if you run out of disk space

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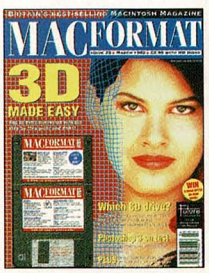

ISSUE 22

March 1995

■ **On the disks:** *Infini-D* demo; *MacConcept; Blobbo*

■ **On the CD-ROM:** 3D spectacular; *The Crystal Rainforest; VideoFusion*

■ **Inside:** How to create 3D images on your Mac; *Photoshop 3.0* reviewed; font problems solved; CD-ROM drives tested; and the most realistic flight sim ever

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ISSUE 23

April 1995

■ **On the disk:** *Oh-no! More Lemmings; StuffIt Lite 3.5*

■ **On the CD-ROM:** Comics collection; *PAWS; Sources of Faith; Marathon*

■ **Inside:** Comics on the Mac – interviews, reviews and how-to's; *FreeHand* v *Illustrator*, colour printers; reviews of *XRes* and the best Mac game ever, *Marathon*

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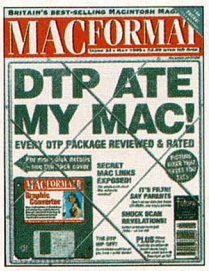

ISSUE 24

May 1995

■ **On the disk:** *Graphic Converter; MacCheckers!*

■ **On the CD-ROM:** Demos of five top DTP programs, including *QuarkXPress* and *PageMaker*, plus *Photoshop 3.0* and *Claris Works 3.0*

■ **Inside:** Every Mac DTP package reviewed and rated; Colour scanners; networks explained; *PhotoFix* reviewed

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ISSUE 25

June 1995

■ **On the disk:** *Knot 1; MacSnails; Glypha III*

■ **On the CD-ROM:** Get started with MIDI; plus Demos of *Alone in the Dark; Wing Commander, Loony Labyrinth, A-10 Attack.*

■ **Inside:** All you need to know about PowerMacs, Fax-modems tested; plus some 'Cosmic' CD-Roms

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ISSUE 26

July 1995

■ **On the disk:** Animation programs, *Disinfectant 3.6*

■ **On the CD-ROM:** Animation demos of *ProMotion, Amazing Animation, Elastic Reality, Morph and Circus* Plus *3D Dinosaur Adventure.*

■ **Inside:** Animation on the Mac; 15- and 17- inch Monitors reviewed; Comms made easy with *TeleFinder*

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ISSUE 27

August 1995

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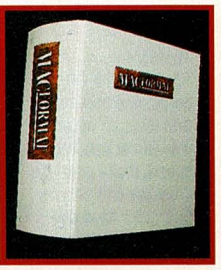

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Dark Forces

Star Wars makes its presence felt on the Mac, from blockbuster movie to shoot-'em-up. Paul Pettengale grabs his blaster and strides into futuristic battle.

ASSAULT

Dark Forces is brought to you by LucasArts, the same people that released the excellent *Rebel Assault* several months ago. It scored a MACFORMAT Classic rating in issue 18.

DEMO SPEED

There's a demo of *Dark Forces* on the CD, containing the entire first level. In order for it to run at maximum speed, make sure you copy the entire folder onto your hard disk before running it.

Whatever it was that happened a long time ago in a galaxy far away, it was obviously pretty monumental. With three films, countless spin-off books and comics, merchandise of the plastic, paper and even die-cast variety (not to mention an American defence initiative), George Lucas's *Star Wars* has become a genre unto itself – a genre which has now been added to with the arrival of *Dark Forces*, the game of the film (sort of), which for once really shows off just what a Mac can do in the gameplay and graphics stakes.

Feel the force with the *Dark Forces* demo on this month's CD-ROM

It's one of those games often referred to as a *Doom* clone, which is a bit odd since *Doom* hasn't been done for the Mac yet. Instead, let's say that it's like *Marathon*. You walk around a three dimensional world, with the ability to run, jump, crouch, sneak and, most importantly, look up and down. This ability adds hugely to the atmosphere of the game. One level finds you traversing tiny ledges above deadly chasms, while another finds you in a pit with aliens showering grenades down upon you from above.

With a full 3D world to run, jump, leap and wander around, a variety of weapons to find and utilise on the collection of Stormtroopers, Imperial militia, space pirates and assorted aliens that populate it, *Dark Forces* is a visually opulent violence-fest. You wander from room to texture-mapped room blasting away at anything that looks like it might start moving (and a fair bit besides). Yes, there are puzzles which have to be solved and keys which must be found, and you've got the eternal struggle to keep your gun and armour energy levels topped up by collecting improbably scattered power-ups, but, essentially, this is an explore-and-shoot-'em-up with the action flowing at an unstoppable pace.

It's the quality of the graphics which lifts *Dark Forces* several heads above the rest of the Mac game crowd. *Sensory Overload* and *Wolfenstein* used a very basic game engine to drive their worlds, whilst *Dark Forces* rivals the magnificent *Marathon*. You can look through a window at the outside of the space dock you are in, or peer down a lift shaft to watch enemies working below.

The sound is also good, with an attempt at stereo effects which almost works. On one level you are knee deep in sewage when you hear a slithering sound moving past you. This gives you a few seconds vital warning before a creature leaps up at you, mimicking the scene in the garbage compactor from the first film. Other bits from the films also appear, such as the prison walls which reflect your laser beams, calling for a judicious choice of weaponry. It's this sort of thing that makes you feel part of the *Star Wars* legend, and gives the game a special atmosphere.

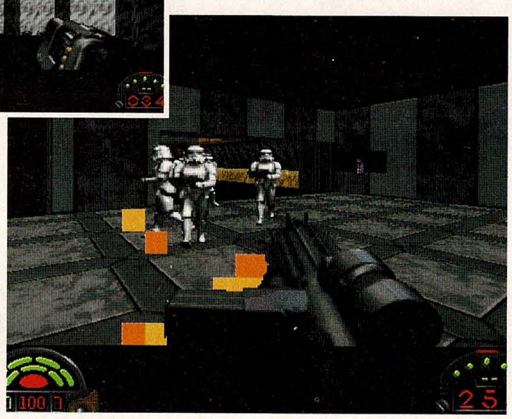
Despite being high-resolution (you can select lower resolutions for slower machines), the graphics incorporate realistic textures wrapped around the various objects in the game to give them a heightened sense of presence and reality. A fast 680x0 machine with CD-ROM drive is the order of the day

This city floats in space, so mind the drop. Bet you're glad you don't get their electricity bill.

Another ledge – time you're in a space hangar. Careful, there could be a baddy down there.

Watch out for this monster's bad breath, it's a killer.

These flying tins can do you a lot of damage, but at least if you destroy them, you can steal their power packs.



On this level, a friendly bunch of Stormtroopers rush out to shake your hand. *[I think you're lying – Ed]*

Oh dear, this guy has both pockets full of grenades.

Not only have you been thrown into a Dragon's pit, you've had all your weapons confiscated!

This Stormtrooper walks out, unaware of what awaits him on the other side of the wall. He never knew what hit him.

here – such is the price to pay for a quality experience. To turn all the quality options to maximum, you'll need a high end PowerMac! Just whack the graphical detail down a bit so you don't lose out on speed.

Graphics alone, of course, don't necessarily mean a great gaming experience – all good graphics can do is take a good game and make it more enjoyable. Bearing that in mind, let's look at the actual gameplay lurking beneath that breathtaking visual veneer. This is also enjoyable – you can't help but think back to the films and hope to taste first-hand a bit of their magic. There are 14 levels in all, but these tend to be quite large, so you get the same amount of gameplay as *Marathon*, which had many more.

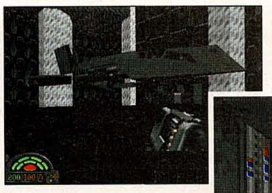
The difficulty settings are about right, with three degrees of difficulty to choose from for each level. You can replay levels later at a harder setting. If you've the dexterity of an Ewok, there's a super shield option which basically makes you invulnerable to most baddies. But it won't help you solve some of the puzzles or find some of the secret rooms. This leads to my one main criticism – if you get stuck on one of the puzzles, you can't advance at all and that's your lot. Also, the secret rooms are often in obscure places, so unless you're willing to search every inch of every wall, you'll never find most of them.

Weapons are carelessly left lying about (so it's just as well there aren't any small children in the game). Pick them up and you have a new method of killing Stormtroopers. Most are lasers, with increasing strength, but the grenades and mines are interesting. You can throw grenades at the enemy, roll them along the ground, or drop them over ledges. Mines can be laid with a five second fuse, or with a proximity sensor. If you come across a large band of enemies, you can blow a raspberry at them, then run away, laying a mine as you go. As your pursuers reach the mine, kaboom! They even fly up in the air for that added realism.

The plot is well constructed and concerns the development of a new Imperial weapon, a super-Stormtrooper of formidable strength and ability (no prizes for guessing if you'll meet some). Cinematic sequences, lovingly drawn by some of the best computer graphics artists in the games business, link the plot to each level. These add a much needed rationale to the action, giving you a sense of purpose beyond blood-lust.

I loved the game and found myself completely hooked, although sometimes frustrated at the puzzles. Perhaps a fraction more play-testing wouldn't have gone amiss, however, and I would have liked to face a more varied opposition. But if, like me, you have been desperately waiting for a successor to *Marathon*, then it has finally landed. **MF**

MACFORMAT Classic

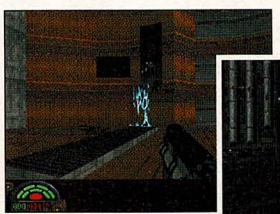


This is the space ship that delivers and retrieves you from each level, so remember where you've parked it!

Big axes are all well and nice, but a blaster would be preferable.

You've made it to the control room. Let's start pressing some buttons and see what happens.

This mutli barrel laser can fire up to four deadly green blobs at once. Terrifying power.



This rifle may not look it, but it's probably the most accurate and deadly weapon in your arsenal.

No, it's not a laser-guided homing frisbee, it's a proximity mine.

This guy has lead a decent, honest life – he's never done a thing wrong. Shoot him anyway.

This is the first Dark Trooper you'll encounter – it has swords for arms. You're in trouble.

The chemical atmosphere in this plant's depths means you must find a gas mask.

About half way through the game, the Empire puts out a contract on you, and Jabba the Hutt gets interested.

The lighting effects are very good. Here, this missile reflects in the metal of the launcher.

DARK FORCES

Price: £44.99. Out: now.
Requires: LC475 or better, 4.5Mb free RAM, CD-ROM drive.
For more details contact LucasArts/Virgin on 0181 960 2255.

GRAPHICS 90%
Outstanding quality and good update speed, but best on a fast Mac.

SOUND 86%
Great *Star Wars* theme music, speech and blaster effects.

GAMEPLAY 93%
The enemy is waiting around the corner with a big gun – what are you going to do about it? Fabulous.

MACFORMAT RATING 92%

DOOM II

Doom was the PC game that started this genre of 3D adventure. We are still waiting for the Mac version, but word is that *Doom II* will be out very soon – watch for our review. *Doom I* will be released around the same time – as shareware!

MARATHON

Which is better, *Marathon* or *Dark Forces*? I've played each to the end and loved both. *Marathon* has better graphics, *Dark Forces* has a better game engine. I recommend that you try both.

A-10 Attack!

The A-10 in question is a military aircraft and not the London to Cambridge road. Jim Chandler reveals the trouble and strafe he had playing this new flight sim.

HELLCAT ERIC

Eric Parker is the leading light at Parsoft. He's best known for his previous flight sim, *Hellcats Over the Pacific*, which, although good for its time, is now beginning to show its age. *Hellcats* was reviewed, and soundly panned, in MACFORMAT 23.

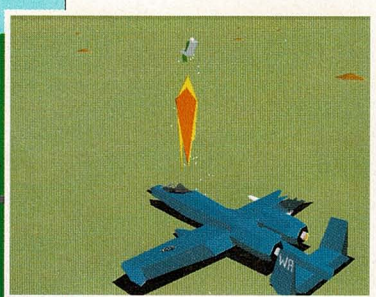
Nearly a year after it was announced, *A-10 Attack!* has finally arrived. It's a flight sim, but it's very different from most. The A-10 is a ground attack aircraft, so it doesn't handle like a fighter. If you're looking for high speed and high altitude dogfights, with plenty of electronic gizmology, then stick with *F/A-18 Hornet* (see MACFORMAT 10). What *A-10 Attack!* has in spades is plenty of big bombs and other expensive nastiness.

A-10s destroyed over 3,000 military vehicles in the Gulf War (one was British)

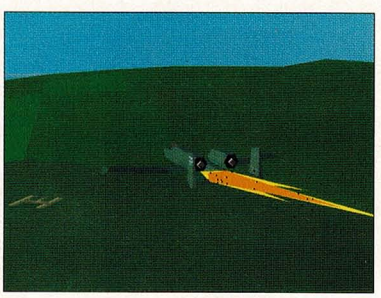
First impressions are that the game is pretty much like any other flight sim, with missions to fly and places to bomb, but it soon becomes apparent that *A-10 Attack!* is a cut above most other flight sims in terms of the sheer accuracy of its simulation. For a start, the cockpit layout, with its head-up display, is exceptionally clear, and even boasts a 'clock' type altimeter. Better still, you can operate the buttons and switches by clicking on them – no more desperately trying to remember keys in the middle of a dogfight. The plane has all the controls you'd expect, including a fairly effective rudder, and even trim controls to ease stick-waggling on those long missions. The plane is stable, with a small amount of 'latency' – a tiny pause between moving a control and it taking effect. Parsoft put this down to 'solid body modelling', which means that the true aerodynamics of the aeroplane are properly calculated, rather than using just a set of equations to approximate them. This realism even extends to the bombs, which have realistic glide slopes.

Most flight sims try for graphical realism, and *A-10 Attack!* is no exception. Aircraft have pilots and insignia, and the bomb loads can be seen under the wings. The sky turns red at dawn and dusk, and gets lighter towards the sun, and the towns and cities have buildings (and in the case of Hamburg, even a cathedral). Parsoft give the virtual pilot plenty of opportunity to enjoy the scenery, too. From the cockpit, you can look around and up and down freely – no fixed left and right views here. You can view your aircraft from outside, too, move around it and even zoom in and out. If that weren't enough, you can 'visit' any identified military unit – friendly or otherwise – and do the same again. *A-10 Attack!* will handle monitor sizes of up to 1,024 x 786 pixels, and can run up to three monitors simultaneously, giving you all-round vision without needing

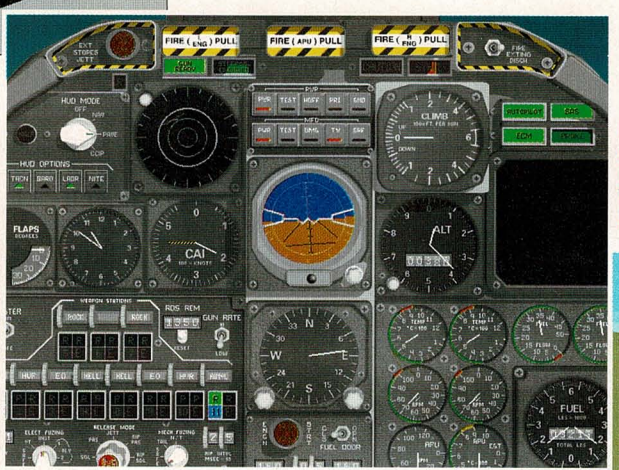
'Oh I have slipped the surly bonds of earth...' An A-10 lumbers skyward, 'loaded for bear'.



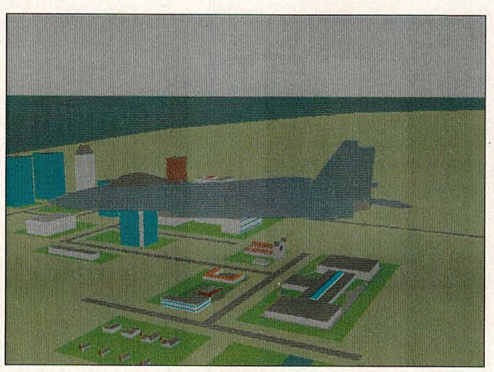
If things get too bad, you can eject. Not recommended when inside a hangar.



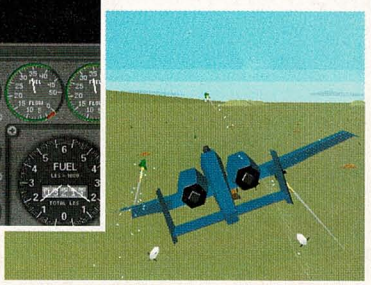
Whoops! This is the result of enemy flak – a fire in one engine. Well that's one failed mission.



In the interactive cockpit you can control the aircraft systems with a 'virtual hand'. Your armament control panel is on the bottom left.



Air cover is provided by other squadrons. Here, an F-15 Eagle flies over Hamburg.



Fire one! Fire two! You've got tons of weapons.

to touch the keyboard.

When you get tired of sightseeing, it's time to go out and inflict wanton destruction on the Godless hordes of, well, the Russians in this case, who have inexplicably rearmed, regained control of Eastern Europe, and generally got the situation back to how it was five or six years ago. After a spot of training in the American desert, you get to tackle the dastardly Reds in Germany. There are eight missions, all set in or around Germany, and they range from shooting up a pleasure steamer (no, really!) to shooting down transport aircraft, to pulverising Russian armoured columns, with various intermediate types of mayhem in between. And that's it. Once you've completed all eight missions, you've completed the game.

You'll take flak when you play *A-10 Attack!* on this month's CD-ROM

There are some other missions available if you can run several copies of the game on a network, allowing you to fly with or against other A-10 pilots. What is surprising is that the almost obligatory Gulf War scenarios are absent. After all, A-10s (according to the manual) destroyed over 3,000 military vehicles in the Gulf War. (It's just a shame one of them was British.)

Not all the action in *A-10 Attack!* takes place in the air. Missions are planned and executed from a tactical map, on which the positions of all known military units are plotted. From here, you can see what other units, such as aircraft, tanks and ships, are committed in addition to your own A-10s. The tactical map also forms the backbone of Parsoft's new Virtual Battlefield Environment (VBE), which should enable any future VBE games – or 'plug-ins' as Parsoft would have it – to interact. For example, a future tank game plug-in could enable one player to control a regiment of tanks, while another player on the same network flies A-10s against him. Parsoft list other future plug-ins as ship and submarine games, anti-aircraft sites, and even an AWACS flying control centre. It all sounds very interesting, and I'm looking forward to them, but in view of how long it took to get *A-10 Attack!* out on the shelves, don't hold your breath.

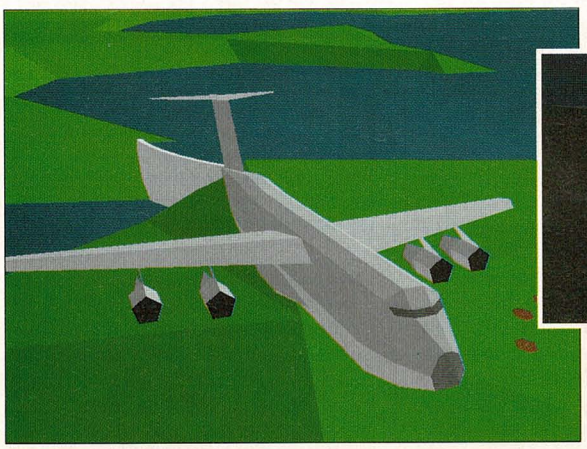
Good though the game undoubtedly is, it isn't perfect. For one thing, the review copy occasionally quit with an error message which means nothing except to the game's programmers, which made me suspect that the game might have been rushed out before all the bugs had been ironed out. The other, and far more serious, problem is the game's speed. For the most part, it's fine. The controls are quite responsive and the graphics scroll smoothly, but when things get really busy, such as during an actual ground attack, the game slows down alarmingly. On a PowerMac 6100, it crawled along at about three frames a second; on a conventional Mac, it was even slower. True, there are options that allow a player to trade off graphical detail for speed, but even these didn't seem to make much difference. The speed problems don't make the game unplayable, but they are frustrating. It's a pity that the game is let down by them, since in most other respects, it is one of the best flight sims I've ever played, easily beating *Flying Nightmares* in terms of realism, and on a par (no pun intended) with *F/A-18 Hornet* when it comes to graphical detail and that feeling of 'being there'. **MF**

MINE'S A PINT

The A-10's GAU-8/A cannon can fire up to 4,200 milk-bottle-sized depleted uranium rounds per minute. Its recoil of 10,000lbs is actually greater than the thrust of one of its engines!

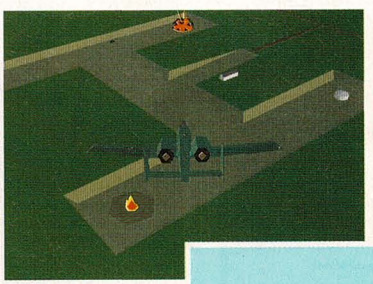
WARTHOG

During the Vietnam war the US armed forces decided they needed a really tough, manoeuvrable plane that could carry a lot of weapons. Too late, the A-10 (nicknamed 'Warthog' out of respect for its elegant lines) emerged in 1977, three years after America withdrew from Vietnam. Things could have turned out very differently...

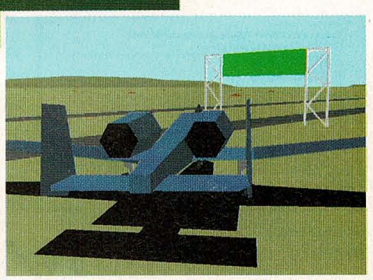


These huge C-5 Galaxy transports can be found on and around your airfield.

Night missions are atmospheric... but bloody dark.

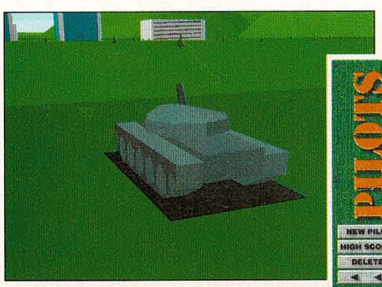


An enemy oil tank bites the big one in a hail of 30mm bullets.

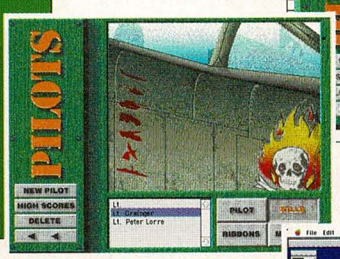


Navigation problems? Stop and read a road sign!

You can define your own pilots. They all look the same, though, with big ears...



This is a Russian T-62 attacking the outskirts of Hamburg. Foolish.



When your pilot scores a kill, it gets recorded here. This pilot has destroyed... nothing, actually.

The view forward is busy, with a full instrument panel and a head-up display.

You control missions with a tactical map. A floating toolbar includes zoom and compass tools, and you can reveal/hide railtrack, road, buildings etc.

A-10 ATTACK

Price: £58.74.
Requires: LCII or better, System 7.0 or higher, 4Mb RAM and a 13-inch colour display.
For more details contact Softline on 0181 401 1234.

GRAPHICS 88%
A little more detail than the usual flight sim.

SOUND 60%
It's there, but it's pretty run-of-the-mill.

GAMEPLAY 84%
Great fun, but slooooow.

MACFORMAT RATING 89%

Spaceward Ho!

They're building space stations in the Lenin shipyards, and it's our poor reviewer who has got the job of polishing all the solar panels. Still, spaceward ho!

Manuals, eh? You can't live with them, you can't learn how to use your software properly without them. Picking up *Spaceward Ho!'s* slender 43-pager you might think the game's a breeze to get into, but you'd be ever so slightly mistaken. It's not a good sign for first-time players when the manual starts off by telling you the differences between versions 2.0 and 3.0, and then the changes from version 3.0 and 4.0.

As a result, there's a danger that *Spaceward Ho!* will dissolve into impenetrable Dungeons and Dragons-style jargon, that if you haven't already been playing this game for years, then you haven't earned the right to start playing it now. These fears are quickly allayed by a fairly straightforward gameplay guide, but the game is crying out for a tutorial. It's all very well learning from the messages that pop up while you play, but *Spaceward Ho!* has so many options that a little more guidance early on would have been much appreciated.

But then nobody said conquering the galaxy was going to be easy. *Spaceward Ho!* is an intricate game of turn-based strategy and combat, stretching your brain power to the limit as you grapple with the complexities of exploration, ship designing (and building), defence, attack, mining, terraforming, colonising... Sounds daunting, and it is at the start, but luckily the designers are some of those crrrrazy American types who have a sense of humour (you know, the ones who wear caps with rubber mallets coming out of the side), and *Spaceward Ho!* is riddled with wacky sound effects and graphics to lighten your load.

You start on a single planet, and, depending on the difficulty level set at the start, you have two or three ships with which to start exploring any nearby planets. The huge number of game options means that there's a virtually limitless number of gameplay permutations, but you're best off sticking with the default settings for your first game. Find a planet worth colonising and you can send a colony ship (if you've built one) to take it over and expand your interplanetary empire. As in a real galaxy, planets are a range of shapes and sizes, some fit for habitation and some great for mining the metal that all your ships are made out of, others less so. When planets have been exhausted of metal, you can abandon them so you don't waste your precious income sustaining life on a useless lump of space rock, an essential tactic to ensure you make the best possible use of your limited funds.

As your empire grows there's plenty to keep your eye on, not least the progress of your human or computer-controlled opponents. They tend to attack your colonies just as they're about to break even and start adding some serious money to your coffers, and, as is often the case, attack is the best form of defence.

Spaceward Ho! is a humble yet eminently playable game. There's none of the fanfare and razzmatazz that accompanies most popular releases, which makes it all the more appealing. For once you're getting the chance to play an old-fashioned game, without being swamped in hype and pointless visuals, just like the good old days.

RICHARD LONGHURST

Invade space with the demo of *Spaceward Ho!* on this month's CD

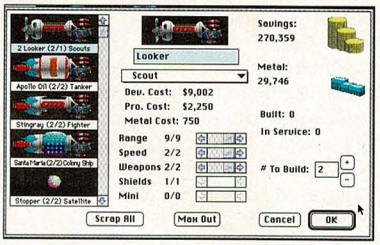
COOL, HUH?

The manual informs us that experienced *Spaceward Ho!* players call the game 'The Ho!'. It claims that in America you can be really cool by saying you're 'Playing the Ho!' but we're not so sure.

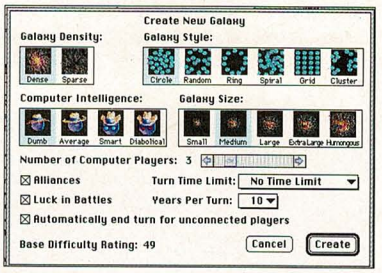
WHATEVER NEXT?

Internet users can get free program updates for *Spaceward Ho!* by accessing the file site at ftp://sumex.aim.stanford.edu

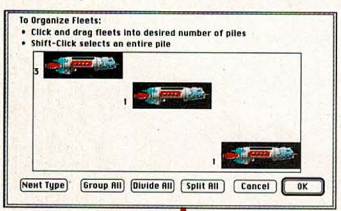
Not all confrontations are as one-sided as this – there can be some pretty tense engagements out there on the final frontier.



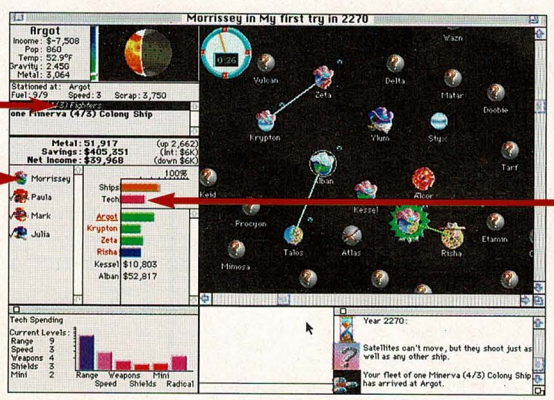
As your technological advances grow, you can create bigger, faster, better-armed and altogether sexier ships. You're not going to conquer the galaxy in a souped-up Reliant Robin, you know.



The options screen is a baffling start to the game, but accept the default settings (shown here) and you should be OK for a couple of light years.

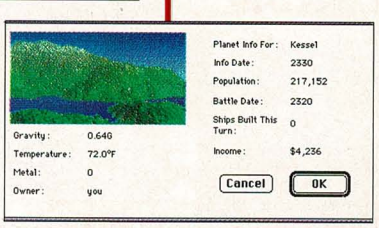


Click on one of your fleets of ships to organise an attack group – ideal for invading small planets.



This is the main game screen showing a small segment of the current galaxy.

Click on your name to take a look at how you're doing – worst in income, best in metal



Roughly 217,152 people currently live on Kessel and enjoy farming its verdant pastures.

SPACEWARD HO!

Price: £39.99.
Requires: any Mac with 5Mb hard disk space, 4Mb RAM and System 6.07.
For more details contact US Gold on 0121 625 3366.

GRAPHICS 71%
Small, but with a sense of humour.

SOUND 73%
Small, but with a sense of humour.

GAMEPLAY 80%
Big, and with a sense of humour.

MACFORMAT RATING 77%

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Ishido

From the makers of *Wolfenstein*, here's a subtle, peaceful and strangely addictive strategic board game. Forget the tiles, why not spend a night on the stones?

SOUNDS ISHI

'Ishi' means 'stone' in Japanese, and 'do' means 'way'. 'Judo' (rhymes with 'food oar', not 'ludo') means 'way of softness', because, according to the Japanese saying, 'softness controls hardness.'

The literal translation of *Ishido* is 'the Way of Stones.' The game is based on the subtle concepts which underpin oriental culture – harmony, balance and good taste. In fact, the complete opposite to a number 37 with egg fried rice from your local Chinese takeaway.

The rules are simple: you take stones one by one from a bag and place them on the board. New stones must match adjacent stones either by colour or symbol; there are six colours and six symbols, and two of each stone, making 72 in all. If a new stone's position puts it next to more than one stone, it has to match both (or all three or four) by a mixture of colour and symbol.

The goal is to fit all the stones on the board, and to get four-way matches: this occurs when you place a new stone so that it's surrounded by two stones of the same symbol and two of the same colour. Do this and you are rewarded with lots of points, plus an oracle reading in response to the question you typed earlier, based on the configuration of the stones. The inscrutable readings will be familiar to anyone who watched the 1970s series *Kung Fu*: 'Only by diligence and restraint does he [that means you] achieve a position of strength.' You know the sort of thing. When this comes in response to a request for which lottery numbers to pick, its validity is questionable. Fun, though.

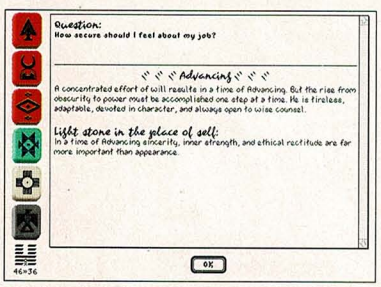
Ishido is a welcome change from yet another game based on shooting things.

The program also lets you edit the designs and backgrounds on the stones, use alternative sets supplied, or even create your own.

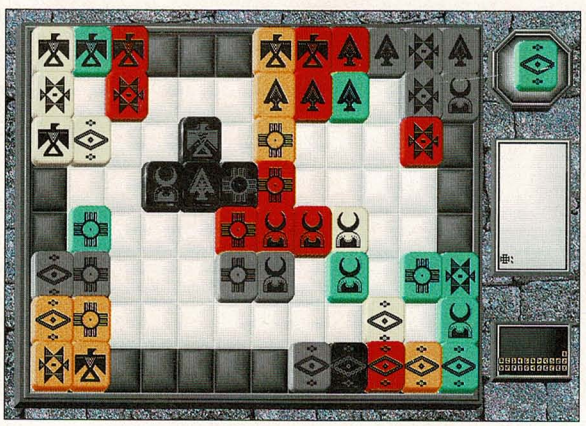
In terms of what the program offers, it's really little more sophisticated than many of the free games you get on the MACFORMAT cover discs. But *Ishido* has a *Tetris*-like addictive quality to it. You'll keep playing new boards time after time, desperate to improve on the last score by getting more four-way matches, and maybe get some solid help from the oracle on your lottery numbers. If you like chess, Go, *Tetris*, Othello, Scrabble and the like, then this is perfect for you. Like many oriental games, you can often play it equally effectively by instinct and overall pattern than by exhaustive stone-by-stone, move-by-move analysis – very handy if you're playing late at night after a beer or two.

The only drawback is the price – a whopping £29.99. If that sounds a bit steep to you, it might be worth waiting for the game to appear in a shareware or PD version. But *Ishido* is a welcome change from yet another game based on shooting things, and you'll keep coming back for more. Finish a gaming session and half an hour later, you're about ready for another one – a bit like Chinese takeaways, really...

ROB AINSLEY


Question:
How secure should I feel about my job?
Advancing
A concentrated effort of will results in a time of Advancing. But the rise from obscurity to power must be accomplished one step at a time. He is tireless, adaptable, devoted in character, and always open to wise counsel.
Light stone in the place of self:
In a time of Advancing sincerity, inner strength, and ethical rectitude are far more important than appearance.
OK

You are rewarded after your four-way match with an oracle answer to your question. Of course these don't tell you anything useful – they just encourage you to work hard, be nice to people, avoid eating fatty foods and so on.



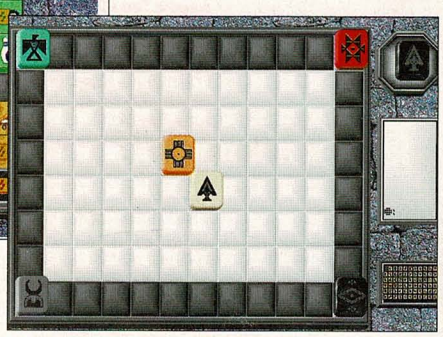
Big points! A four-way match. The stone to be played is the turquoise eye (in the top right hand corner). It will slot in that hole at the bottom right-hand corner of the board because two of the surrounding stones are eyes, and the other two are turquoise.

Another alternative stone set, this one is made up of the Chinese characters for the four winds (north, south, east, west) plus those for 'middle' and 'river'.

RISING FUN

Common Japanese board games are Go (a bit like draughts, on a 19 x 19 board) and Shogi (like chess, with 20 pieces each). About ten to 20 million people play each game.

You have the choice of several stone sets to use. Why anyone would want to use this rather unpleasant selection of 1950s Americana is a mystery – the sort of mystery even an oracle couldn't answer.



The start of a game. You have six stones already put on the board for you, and you lay down the stones on the board one by one which are drawn from the pouch (bottom right hand corner).

ISHIDO

Price: £29.99
Requires: System 6.0.7 or later, any Mac with 650K RAM, 6Mb hard disk space (b/w version); or any 256-colour Mac with 2Mb RAM hard disk space (colour version).
For more details contact Interplay Productions on 01235 821666.

GRAPHICS 80%
Basic but with the option to customise the look.

GAMEPLAY 85%
Addictive and deceptively simple. However, it is a bit expensive for what it does.

MACFORMAT RATING 80%

The wizened head of the navigator may look like he's been in soaked in vinegar and baked in the oven, but he is vital to your success.

Gamebusters

The end is drawing near, me hearties. Here's the final part of the solution to the top pirate adventure *The Secret Of Monkey Island* – the clever-clogs who cracked it is Scott Love of Edinburgh. Scott, you get a copy of the voodoo epic *Gabriel Knight* for your pains – thanks. And there's more prizes up for grabs for anyone sending us a complete game solution.

The Secret of Monkey Island

Pick up the little wimpy idol. Go back to the cannibals' village. Give them the wimpy little idol. Go to the hut once it is opened and take the banana picker. Head back to the jungle. You will see Herman Toothrot. Give him the banana picker. He will give you the monkey head key. Row back to the clearing. Then use the monkey head key in the gigantic monkey ear to open the mouth.

Row back to the cannibals. Tell them you're looking for someone who isn't living. They will tell you about the catacombs beneath the monkey head. Ask them if you can go there. When they refuse to give you the head of the navigator, give them the 'How to get ahead in navigating' leaflet. They will give you the navigator and a magic necklace which makes you invisible. You need to find a magic root so they can make a potion to kill LeChuck.

Go back to the monkey head and go inside. Use the head of the navigator and follow its nose until you see LeChuck's ghost ship. Talk to the head of the navigator. Keep asking for the necklace until it gives it to you.

Use the necklace to become invisible and walk on to the ghost ship. Go through the left door. Use the magnetic compass to attract the key. Go back on deck and down the hatch. Walk to the passage. Pick up a ghost chicken. All you will get is a feather. Go back to the passage and tickle the sleeping crew member with the feather until he drops the jug o' grog. Take it. Go through the passage again. Open the hatch with the key. Go down the hatch and pour the grog in the dish so the rat can drink it. Once the rat is drunk, pick up the cooking grease.

Go back up to the top deck. Walk quickly to the door on the right. Using the grease on the door will stop it squeaking when you open it. Go inside and take the ghost tools. Go back down the hatch and through the passage. Open the glowing crate with the tools. Inside you will see the root. Leave the ship and walk back to the cave. You will go straight to the cannibals' village. They will swap your root for a bottle of root beer. Return to the ghost ship. The ghost pirate will tell you that the ship has gone to a wedding on Mêlée Island.

The Last Part: Guy Kicks Butt

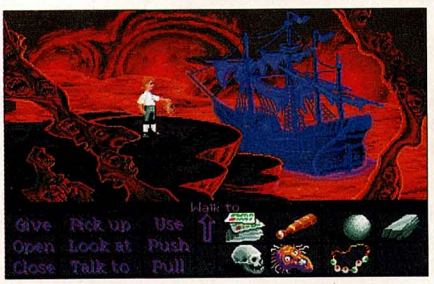
This final part is basically an interactive end sequence.

Head for the church, wiping out all the pirates with the root beer. When you get there shout that the groom is not human. Try to use the root beer on LeChuck. It will jam, but don't worry. LeChuck will send you flying to Stan's. When LeChuck pulls you out of the Grog machine, pick up the bottle on the ground. You will be punched again.

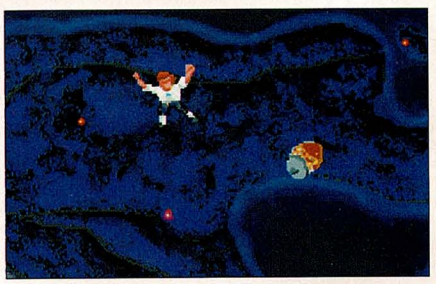
When you land at the house, use the bottle on LeChuck and taste sweet victory at last with a peach of an end sequence.

NICK HARPER

Once inside the giant monkey head, you can use the head of the navigator to find LeChuck's ship.

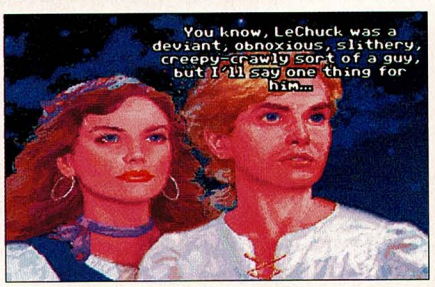


Eventually you'll find LeChuck's ship. Use the magic necklace to make yourself invisible.



When you return to Mêlée Island, you and LeChuck will brawl and he will send you flying sky high.

Zap those evil ghosts with the root beer. Then rush to the church to save your loved one, the Governor.



Once Le Chuck's been killed, you and the Governor can spend the rest of your days in each other's arms. Aaah...

SIMANT – CHEAT CODES

Dominic Tsui of Cambridge offers these cheat codes for the small scale sim from Maxis. Keep those cheats coming in – a prize may well be coming your way.

erad	starve yourself	fred	see winning screen
FUND	earn $10,000	hole	dig lots of holes
jeff	start colonies everywhere	jenn	unlimited health for black ants
mick	makes the spider go into reverse	just	get ten black queens
rand	gives yellow ant 100% strength	QEEN	gives reds another queen
qeen	gives blacks another queen	susi	unlimited health for yellow ant
will	never lose a fight against a red ant	Dominic wins £5 for providing these.	

The Little Mac Toolkit

At over 500 pages, this book looks big. Bigger still is the CD-ROM of software that comes with it. Are these all the utilities you'll ever need...? We ask Rod Lawton.

SYSTEM 7 COLLECTIONS

The CD-ROM contains three collections of System 7 enhancers, offering everything from document linking to a Finder Quit command that frees up extra RAM.

HOW MUCH?

If you registered every single piece of software on the CD-ROM it would still only cost you around £750. On average, it works out about £6.25 per program.

Sometimes the distinction between a book and a piece of software gets blurred. Usually, any disk or CD-ROM that comes with a book is a bonus that reflects the contents of the book. In this case, though, the CD-ROM is the real star, containing over 120 top Public Domain and shareware Mac utilities, while the book's role is simply to explain how each one works and at the same time to give a little background on the Mac's System.

The fact that this software is PD or shareware does not mean that it's second-rate. Nothing could be further from the truth. PD and shareware programmers know as much about the Mac as the Apple engineers themselves – and they are at least as in touch with what real people use their Macs for.

To start with the book, though: it's broken down into sections, each devoted to a specific area such as Finder/System utilties or compression tools. And within each section are descriptions of the PD and shareware scene's top utilities. The descriptions include background information on what they do and why they were written, as well as screen shots and explanations of dialogues, and even detailed walk-throughs of key procedures.

The corresponding utilities on the CD-ROM are stored in folders named according to these section breakdowns. It's logical, easy to follow and very neatly done.

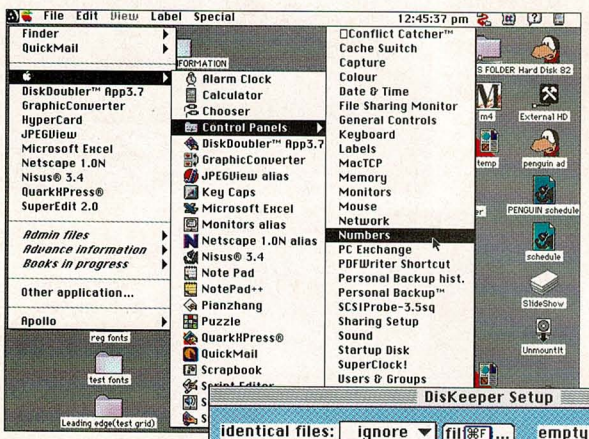
The writing style is friendly and clear and you certainly don't have to be a Mac expert to follow it – although by the end you'll know a lot more about your machine than you did at the start.

The Little Mac Toolkit is a very unassuming name for an amazing collection.

The book, then, is very good indeed. What about the programs?

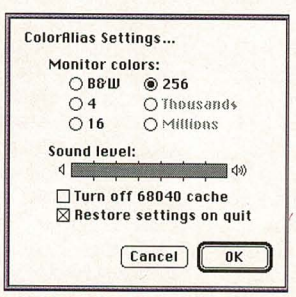
Brilliant. Well, not all of them, because some were written by people with very specific needs and ways of doing them. But there are enough real gems here to make the cover price well worth paying many times over. Of course, most of these programs are shareware, meaning further fees are payable to the authors, but you'll have to decide for yourself which programs are worth keeping. I'm willing to bet you'll never see so many quality utilities on a try-before-you-buy basis again. Here are just a few highlights:

- **Extensions Manager:** This handy utility enables you to save RAM and reduce your Mac's starting-up time by creating 'sets' of Extensions to load depending upon your needs at any one time.
- **MemINIT:** This simple utility displays a bar across the top of your screen to show the amount of memory the current application is consuming.
- **Stapler:** Many Mac tasks involve opening not one file but several. Using *Stapler* you can 'staple' sets of related files together so that one double-click opens them all.
- **Apollo:** This Extension creates a super-menu at the far right of your menu bar which can display currently-running applications (and their open windows), user-selected applications and files, and groups of related objects. This is achieved using hierarchical menus, and it's an inspired enhancement to the Finder interface.
- **TearOffs:** This is another piece of sheer inspiration. If you're tired of continually dragging down the same menus in your favourite application, this control panel enables you to tear them off and leave them on-screen like palettes.
- **ZoomBar:** Does your way of working quickly leave your Mac's screen a mass of opened windows? This Control Panel enables you to shrink

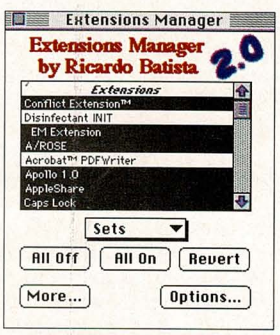


Apollo is a quite superb hierarchical menu-ing system. Via a single drop-down menu you can find or load anything on your hard drive. Amazing.

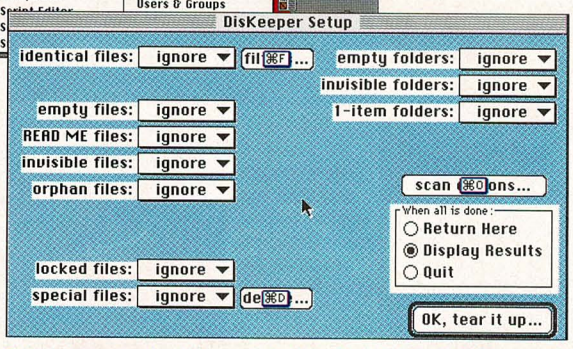
Calculator II is much, much, much, much better than the standard Mac effort.



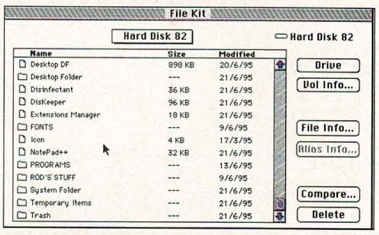
ColorAlias will launch applications with the monitor settings of your choice – no more trips to the Control Panels.



Extensions eat up your RAM and can crash your Mac. *Extensions Manager* will help you stay in control.



Did you know your hard drive contains lots of invisible files? *DisKeeper* will let you find and delete all your redundant files – visible or not.



Isn't it about time you got rid of all your outdated Prefs and ReadMe files? *File Kit* will do the job.

windows down to just their title bar with just a mouseclick.

■ **File Kit:** Macs can quickly fill up with junk files – outdated Prefs files, 'invisible' files and duplicate files. *File Kit* can find them all and help you clear out the junk.

■ **SmartKeys 2:** Are you a lazy typer? Do you put extra spaces between words? Do you leave the [shift] key down an instant too long and capitalise extra letters at the start of sentences? Do you keep forgetting the correct key combinations for proper typographical ('curly') quote marks? If you do a lot of typing, this Control Panel's tiny repertoire could still save you hours.

■ **DarkSide:** Screen savers are designed to prevent the 'burn-in' that results when your screen displays the same static image for too long (i.e. when you go away and leave it unattended). *DarkSide* has more options, bells, whistles and common-sense touches than any other.

■ **ColorAlias:** If you're still using software that's a bit fussy about your Mac's display set-up, or your hardware can't cope with running a heavyweight application in full colour, you need *ColorAlias*. It creates an alias that resets the monitor as it launches the application.

■ **StuffIt Lite:** Shareware compression utilities are so good that few Mac owners buy a commercial offering. *StuffIt Lite* and *Compact Pro* are two shareware programs that share the top honours. At the moment, *StuffIt* seems to be a nose ahead in both the features and performance stakes.

■ **MacUpdate:** Backing up your hard drive doesn't have to take an age. Do it once and then all you need to do is simply back up the files that have changed. *MacUpdate* will even do it automatically.

■ **MacPassword:** This program will not only password-protect your Mac at start-up, it can also protect individual files, folders and drives.

■ **Disinfectant:** One of the Mac's best virus protection programs also happens to be free!

■ **SuperClock:** This is a clock that sits on your menu bar and can tell you the time and date, and can function as a timer too.

These are just selected highlights from the excellent Mac Toolkit CD-ROM. There are also many utilities designed for the special needs of PowerBook users, plus fonts and lots of (mainly crap) games.

The Little Mac Toolkit is a very unassuming name for an amazing collection of fascinating Mac utilities and an easy-to-follow insight into the workings of your Mac. Thoroughly recommended.

MF

THE FIRST THINGS TO THROW OUT...

There's something comforting about the Mac. No matter how much some things change, others stay the same they've always been. Like the Notepad, Calculator and Clipboard/Scrapbook Desk accessories that were first invented some time before the Napoleonic Wars and still adorn your Apple menu.

This book's CD-ROM contains three very much more up-to-date replacements for these antediluvian relics:

Notepad++ has 35 leaves instead of eight, and the length of each leaf is limited only by memory. You can change typestyles, perform word counts, convert file formats, load and save external files and practically make the flipping tea.

Calculator II offers trigonometry, logarithmic and exponential functions plus a memory! Good God, a calculator with a memory. Had no-one at Apple noticed they were putting them on calculators before Apple was even a pip?

ClipClop replaces the Mac's standard clipboard with one that records everything you copy in a separate clipboard window until you tell it to stop or it fills its memory allocation. It makes multiple copying and pasting a dream. *ClipClop* has a scrapbook window that displays all the contents as miniature thumbnails. You can have lots of scrapbook files, not just one.

Why are these 'replacement DAs' so much better than the originals? I don't know – maybe you should speak to the programmers. Maybe you should speak to Apple. Someone should.

THE LITTLE MAC TOOLKIT

Price: £28.95. ISBN 1-56609-042-3
Requires: Any Mac, System 7.
For more details contact Addison Wesley on 01734 794000.

FEATURES 92%
Covers the whole spectrum of Mac utilities. Few lame ducks, bar the games section.

EASE OF USE 75%
Most of the utilities are straightforward, but the on-line help doesn't always (help, that is).

DOCUMENTATION 95%
By which we mean the book. It could hardly be more logically arranged. Not suitable for absolute beginners though.

VALUE FOR MONEY 80%
An astonishingly good-value try-before-you-buy experience.

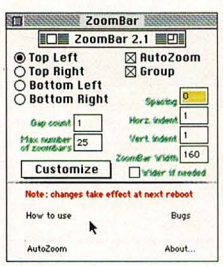
MACFORMAT RATING 89%

TIP OF THE ICEBERG

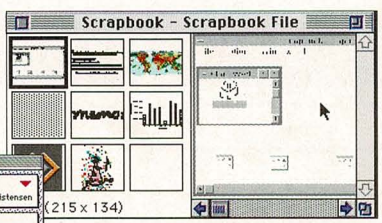
The utilities I picked out for special mention in this review struck me as being especially useful. There are many, many more of similar quality that there was no space to mention.

ANY OTHERS?

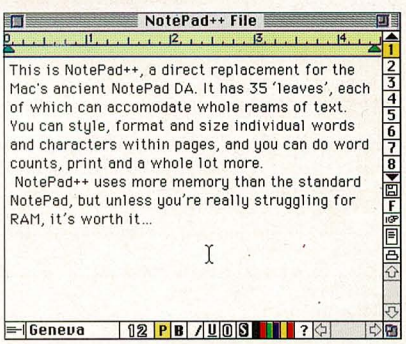
There are. Many authors produce books that explain the Mac's OS and bundle a disk full of relevant utilities. But I haven't seen any that offer this quantity of software coupled with such simple explanations and clear layout.



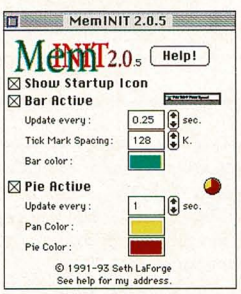
Zoombar lets you shrink windows down to just their title bars.



ClipClop is a Clipboard replacement that also does a better job than the standard Scrapbook.

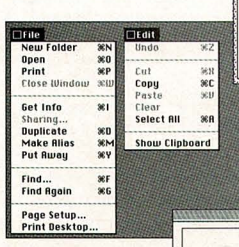

NotePad++ File
This is NotePad++, a direct replacement for the Mac's ancient NotePad DA. It has 35 'leaves', each of which can accomodate whole reams of text. You can style, format and size individual words and characters within pages, and you can do word counts, print and a whole lot more.
NotePad++ uses more memory than the standard NotePad, but unless you're really struggling for RAM, it's worth it...
Geneva

SuperClock is the Mac's best Desktop clock. It can also sound alarms, and act as a timer.

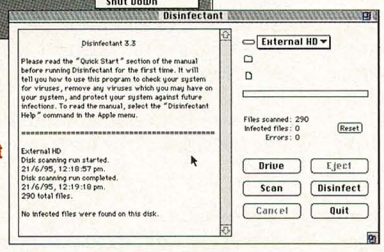


MemINIT displays your RAM usage as a rather pretty coloured bar running along the top of your menu bar. So much nicer than that 'About your Mac' dialogue.

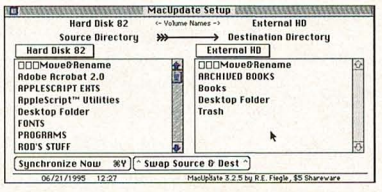
NotePad++ replaces the standard Mac notepad. And it's miles better.



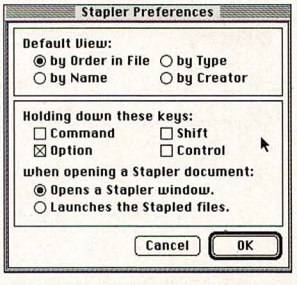
TearOffs is blindingly simple and brilliant. Just drag on a menu to tear it off into a floating palette. And it works with any application!



The best free virus-checker you can get. There's no excuse for not using one!



MacUpdate is a back-up utility that works with names items only and does incremental saves.



Stapler links together related sets of files so that you can open them all with a single double-click.

Free reader ads

If there's anything you want, whether hardware or software, or you want to find a local user group, look no further...

HARDWARE FOR SALE

■ Classic II 4/40, *ClarisWorks 1.0, KeyFonts*, System 7.01, no mouse – £350 ono. Nick ☎ 01271 43376

■ Tech-works LC PDS Ethernet and FPU combined card – £60 or swap for Superdrive + cash. ☎ 01225 862 506

■ SIMMs 4x1Mb 80ns 30-pin – £60. Durham ☎ 0191 384 8225

■ Mac LC475, 8/160, Performa Plus monitor, System 7.5, Domain 33MHz accelerator, some software, keyboard, mouse, one year old, home use only – £850 ono. ☎ 01524 736478

■ Syquest 44Mb drive – £75; Sante Ethernet card – £100; Apple 300CD with manual & cables – £95. ☎ 0181 786 8060

■ 4Mb SIMM 72-pin, new (from LC630) – £70 or swap for software, eg. *Borderbund Living Books, KPT Bryce, VistaPro, Flight Sim* to equivalent value. ☎ 01689 821615 (eve/wkend)

■ QMS PS-2200 A3 15ppm 300dpi laser printer, dual paper trays, vgc – £800. Nick ☎ 0585 562336

■ Extended keyboard, new, unused, warranty – £95 ono. Poland, fax 00 48 3 153 8624 – FAO Martin Chrobot

■ Mac SE 4/40, mouse, keyboard, System 7.0 – £350 ono. Marc ☎ 01383 736682

■ LCII 8/80, 13-inch colour monitor, mouse, keyboard, Apple CD300 double speed, + CDs – £950. ☎ 0171 240 7100 extn 4041 (day) 01438 820881 (after 7pm)

■ Scanman Logitech, model 32, greyscale scanner, software & guidebook – £95. Howard ☎ 0171 739 8655

■ Mac IIfx, 8Mb RAM, 600Mb hard disk, 14-inch Hitachi colour monitor, keyboard, mouse, *ClarisWorks, Organiser* & more – offers (going abroad). Dean ☎ 01256 819997

■ US Robotics Sportster 14.4 Mac & fax modem, unused, still boxed – £150. ☎ 01603 737549

■ *ImageWriter II* inc sheet feeder – £100; Mac Plus 1Mb RAM – £70; External floppy disc drive (800K) – £70, all ono. Stockport ☎ 01625 850612

■ Apple greyscale scanner, inc all leads & software – £200 ono; *Photoshop LE*, boxed, unopened, upgradeable cheaply – £170; scanner & *Photoshop LE* – £350. ☎ 0181 761 5352 or e-mail jkb@cosmos-uk.org

■ Apple StyleWriter II printer, boxed, exc condition, light home use only (changed to colour printer) – £130. Dorset ☎ 01308 485441

■ PowerBook 170 8/120 fax modem – £900 ono. Paul ☎ 0181 960 0994

■ Miracom modem WS4000 (V2123), little used – £50. Roger ☎ 0171 359 3760

■ Mac SE 2/40, light home use, System 7.1, loads of software, ideal for small business – £275. Jody ☎ 01642 597632 (after 4pm)

■ Two new batteries for PowerBook 100 – £50 ea or £90 for both. ☎ 01903 213906

■ Performa 475, 4/160, *Software FPU*, eight mths old, new Logic board, home use, PP 14-inch monitor, keyboard, mouse, all manuals, lots of software, upgrading – £800 ono. Lesley ☎ 0141 840 1641.

■ Classic 4/40, has 68030 16MHz accelerator card installed with 8Mb RAM, Apple CDSC Plus, System 7.1, keyboard, mouse, all boxed with manuals, cables, original discs and extras – £850 ono the lot. ☎ 0151 733 8025

■ RAM – 4x1Mb SIMMs, 30-pin from Quadra 700 – £25 ea or £85 the lot. Julian, Brighton ☎ 01273 684730

■ 8Mb 72-pin SIMMs – £150, works on Quadra, LC, 630 etc; *Photoshop 3* deluxe CD version, unregistered, unopened – £350. ☎ 01256 763825

■ HP A3/A4 PaintWriter XL, little used, exc value – £1,000 dispatch C.O.D. Uel ☎ 01762 361333 fax 01762 350797

■ Syquest 44Mb drive plus 5 disks, mint condition, low volume use only – £200. Howard ☎ 01536 418137 fax 01536 418928 (any time)

■ Mac LC 10/80 256 VRAM, 12-inch colour monitor, keyboard, mouse, microphone, manuals etc, home use only, excellent condition – £550 ono. Austin, Harrow ☎ 0181 248 3247

■ Mac LCII 6/80, Performa Plus, 14-inch monitor, boxed, little use – £600. Bedfordshire ☎ 01582 570167 (eve)

■ Apple StyleWrite II printer, boxed, refills, dust cover & manuals included – £130. Steve, Surrey ☎ 01932 353174

■ Mac Centris 610 8/230 CD, CD not currently working, good condition, still with box – £500. ☎ 01454 201910

■ PowerBook 540 8/240 as new with box, manuals, adapter, two batteries, PowerPC upgradeable, also inc *Microsoft Office V.3*, unopened – bargain £1,525. ☎ 0115 985 5151

■ SE30 8/250 extended keyboard, 20-inch monitor, 2x1.4Mb, floppies, HP DeskWriter, home use only, exc condition – sensible offer. ☎ 01362 820653

■ Mac LCIII 4/80, Apple 14-inch colour monitor, keyboard, mouse, StyleWriter II, Apple CD-ROM 300i, System 7.5, boxed, as new – £1,050. David ☎ 01202 546595

■ IIvx 8/80, 14-inch colour monitor, System 7, keyboard, mouse, manuals, exc condition, light home use, boxed – £750. ☎ 01843 869624 (eve)

■ RAM SIMM 4Mb, 70ns, 72-pin from LC475 – £75, one careful owner. Mike ☎ 01743 232268 (anytime)

■ Mac IIsi 5/80, with RAM Doubler, 9-inch TPD Radius mono display, keyboard, mouse, ideal for DTP start up – £975. Surrey ☎ 01483 428894

■ PowerMac 7100/66, 8M/350Mb, extended keybaord, mouse, 14-inch Apple monitor, extra 256K cache, accelerated to 84/80MHz, 2 months old, boxed as new – £1,550. Terence ☎ 0181 390 7096 (eve)

■ LC3 4/80, 14-inch colour monitor, mouse, keyboard, vgc, light home use – £700 ono. North Wales area/Chester border ☎ 01352 741744 (after 6pm)

■ PowerBook Duo 210 (4/80), mains adaptor, external disk drive, mini dock, mouse, HP DeskWriter 510, software, under 9 mths old – £800. Stoke ☎ 01782 710720 (wkdays)

■ Mac CX 8/105 design keyboard,

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USER GROUPS

Need hands-on help with a Mac problem? Want to swap shareware or freeware, or just meet other Mac enthusiasts? Try a user group near you...

■ Nottingham Computer Club. Please send an SAE to Sherwood Community Centre, Mansfield Road, Nottingham. (MF30)

■ Performance user group/ newsletter for home users. Non-commercial. Send large SAE for details. REF: MF, 36 Oakfield Close, Laurel Fields, Potters Bar, EN6 2BE. (MF30)

■ Performance user group/ newsletter for home users. Non-commercial. Send large SAE for details. Ref MF, 36 Oakfield Close, Laurel Fields, Potters Bar EN6 2BE. (MF30)

■ Jerusalem, Israel. Tel: Azzedine Downs 972 02 277 376 e-mail: **62876587@e/n.attmail.com**. We are just starting. (MF30)

■ Mac Attack user group, regular newsletter, special reductions, send SAE to 17 Lissadell Drive, Magherafelt, Co Londonderry, BT45 5AR or contact David Gillespie (Director) on 01648 33893. (MF32)

■ Keynet BBS now on-line – 0181 954 0847. For musicians, music, MIDI, *Finale*, *Cubase* etc. Mac, PC, Atari. Two high speed lines, 24 hours. (MF32)

■ The Computer Textile Design Group. The essential link between computer and textile designers. Contact Dee Chester, 12 Le Brun Road, Eastbourne, BN21 2HZ. (MF32)

■ North West Macintosh and Apple user group. Cheshire area, north. Contact Mr Sean McCleery on 01270 624271. (MF33)

■ New Oxford user group. We're currently looking for members, help and shareware. Send an SAE to 30 Sandrield Road, Headington, Oxford OX3 7RJ. Monthly magazine! (MF33)

■ Pentrisoft – the programmers' user group. Distribution, tips and advice. Write to Stéphane Gray, 'Oaklands', Rock Lane, Hastings, East Sussex, TN35 4NY for details. (MF33)

■ Appel Club Eindhoven, The Netherlands. Contact Arie Nagel +3140 523879,e-mail: a.p.nagel@bdk.tue.nl (MF33)

■ The Mac Netsurfer Group – a net discussion group for Mac users. If you're interested, please fax me (Josh) on 0171 328 5888 or e-mail: Maniac@badapple.demon.co.uk (MF33)

■ ClubMac Cork, for all Mac enthusiasts outside of Dublin. Monthly meetings, own Bulletin Board, newsletter etc. Online to Internet at meetings. New members welcome. For details telephone or fax Dominic Murnane on 026 41167 or e-mail dominicm@eirenet.net (MF33)

■ Peter and Paul's Practical Page! The ultimate net hot spot for kids by kids! The e-mail address is: http://inchnd.stir.ac.uk/relstd/kww1/paul/Peter&Paul.html (MF33)

■ Mac Jungle BBS, on-line with new host software – call 01235 520507 (MF33)

■ MACBEL User Group VZW – Belgium's only non-profit Mac User Group. We provide bi-monthly magazines, Internet discounts, local BBS suppost (Telefinders 32-3-4543069) and meetings. Call Bart on 32-3-6404031 or e-mail info@macbel.be

■ Mac Jungle BBS on 01235 520507 – Telefinder host – 28.8K V.34 modems – over 1Gig of Mac shareware on-line! Now supporting TLAN conferences daily!

Groups will be listed here for six issues, then deleted in order to help weed out defunct groups. The code at the end of each entry is the last issue in which it will appear. If you want your entry renewed, send in the coupon on page 140. If your group isn't listed here, then send us your details!

Please note: this list is provided as a free service for amateur, non-profit-making Mac user groups. MACFORMAT does not endorse or recommend any group and cannot be held responsible for any problems you might suffer as a result of contacting groups advertised here.

mouse, Apple 13-inch hi-res colour monitor, Radius two page mono display with card – £800 will split. Warwickshire ☎ 01203 382861

■ LaserWriter NT for sale, good condition, all manuals and disks, full toner cartridge, light home use – £506. Jody ☎ 01642 597632 (after 4pm)

■ Logitch Scanman with *Catchword Pro OCR* software – £80. ☎ 0121 358 1266

■ Centris 610 4/230 CPU with inernal CD300 – £485; keyboard, mouse, monitor – £180; Apple greyscale scanner – £120; LaserWriter II NTX – £365. Philippa ☎ 01273 476593

■ Apple PowerBook Duo 230 4/80 W/Ext 1.44 Mb – £695; HP DeskWriter 510 – £145 (both unused); SuperMac Thunder 24 – £950; Radius Precision Pro 24X – £350; Wacom A3 pressure sensitive tablet – £480; Mitsubishi 37-inch display monitor – £2,300. ☎ 01242 252527

■ Performa 400 4/80, 14-inch colour monitor complete and ready to use, inc *Symantec C++* and other software – £450 ono. Graham ☎ 01705 341287

■ Apple 24-bit accelerated 7-inch Nubus display card, nearly new – £360. ☎ 01926 334594

■ Canon CLC10 colour scanner, 6 mths usage, sold with Adobe *Photoshop*, new condition, call for info. ☎ 01225 862350 or 01225 865601

■ Memory 8Mb 72-pin SIMM – £150. Basingstoke ☎ 01256 753825

■ 19-inch black & white monitor, vgc, sensible offers; ImageWriter II with black & white & colour ribbons – £100. ☎ 01760 440364

■ Classic 4/160, Harris 030 accelerator, System 7, keyboard & mouse – £450; Epson LQ400, 24-pin printer & software – £50, home use only, excellent. Michael ☎ 01525 712369

SOFTWARE FOR SALE

■ *Rebel Assault* – £15; *Wolfenstein* (30 levels) – £8; *Prince of Persia* – £8; *Connectix Powerbook Utilities* – £10; also buying and swapping games. Norwich ☎ 01603 451839

■ *Power Print 2.5* package, allows you to connect Centronics (PC) printers to your Mac! Cost £150 new, sell for £80 ono. ☎ 0161 248 7893

■ *Marathon* – £25; *PGA Tour Golf* – £10; *Keyfonts* CD-ROM (200 TrueType/PostScript fonts) – £20; all boxed, as new. Also StyleWriter I boxed, mint – £125. ☎ 0191 273 6687

■ *King's Quest VI* – £19; *Pathway into Darkness* – £19; *Mario is Missing* – £15; *WordPerfect Clip Art for Kids* – £15; *Storybook Maker* CD – £20. All originals. Marie-Louise ☎ 01868 725342

■ MacAcademy videos, *Photoshop 1 to 6*, *QuarkXPress 1* to *4*, unwanted gift, first come first served, any reasonable offer. ☎ 0171 607 5390

■ *Myst* CD-ROM boxed – £25; *Lucas Arts* CD-ROM; *Monkey 1 & 2*, *Indy Fate of Atlantis* – £40 ono, will consider swaps. Matt ☎ 01705 871496

■ *PageMaker 5.0* – £225, all manuals boxed, as new. Brian ☎ or fax 0141 552 7543

■ *Lemmings*, *PGA Tour Golf*, *Prince of Persia*, all boxed, with manuals, £10 ea or £25 the lot. ☎ 01506 442846 (eve)

■ *Claris Organiser* – £25; *Now Utilities/Contact/Up-To-Date 4.2/2.1* – £15 ea, *ClarisWorks 2.1* – £40. ☎ 0161 653 7826

■ *Fax STF 3.0 + Autopak* – £30; *FoxPro 2.5* – £50; *MacTools 3.0* – £25; *Soft PC with Windows* – £90; *Soft Windows* – £110; *Quicken 4.0* – £20; *MYOB 4.0* – £25; *Access PC3* – £20. ☎ 0161 653 7826

■ *Campus* CD with *PC Exchange*, *Managing Your Money*, *Retrieve It*, *After Dark Starter*, *Deneba Artworks*, *Far Side Daily Planner*, *Spectre* – £25 + free CD, many goodies. ☎ 0161 653 7826

■ *Prince of Persia 1 & II*, double pack *Lemmings; X-Mas*, and *Oh No More Lemmings*, *Spectre*, *Chess Champion 2175*, only used once – £120 ono, will split. ☎ 01332 519076

■ *SimEarth*, boxed, all manuals and disks – £8; *At Ease*, all manuals & disks – £20; *Kid Pix 1.2* and *Kid Pix Companion*, all manuals & disks – £15. ☎ 01502 715711

■ System 7.1 inc LCII manual, *ClarisWorks 1.0*, *Database Mac 1.0* – £15 ea; *Aldus Personal Press 2.0* – £30. David ☎ 01932 562936

■ *ClarisWorks 2.1* disks & manuals – £35. ☎ 01332 874706 (eve/wkends)

■ *Marathon* – £35; *Astro Chase* – £15; CD-ROM *Darkseed* – £20; *Ghost* – £28, all good condition, the lot for £80. ☎ 0181 398 2809

■ *Redshift* – £30; *Warplanes* – £20 (CD-ROMs); *Home Publisher 2* – £25; *CD-ToolKit* – £15 as new. Ian, Southend ☎ 01702 294330

■ *ClarisWorks 2.0*, complete manuals & boxed – £60; *Thunder 7* spell check, complete, boxed – £40. Natalie, Colchester ☎ 01206 751125, no cranks please

WANTED

■ Daystar Universal Powercache, 50MHz, also adaptor for Colour Classic. ☎ 01223 415066 (eve)

■ *Mac Project* or *MS Project* at a reasonable price; also require a programming language, Basic 'C' etc. Jim ☎ 01343 842283

■ *Home Publisher* software bundled with my Mac but no manual! Does anyone have a manual or user guide for sale, please? ☎ 01895 674603

■ Apple LaserWriter IIG motherboard (would consider swap for my IINTX motherboard, with cash adjustment). Martin ☎ 01491 411506 (eve)

■ Printer – ink jet, HP 500 type wanted. Must be good condition and fair price. ☎ 0121 704 1348

■ MACFORMAT CD-ROM from issue 14 (CD only, not mag) wanted. Tor Oeines, address: Hoelstangen 22, 2080 Eidsvoll, Norway ☎ 47 6385 5595 (after 3pm GMT)

■ Printer for use by my handicapped daughter (proof can be supplied). Must be cheap as on income support. Brian ☎ 01633 290407

■ 512K VRAM for LC, will pay £15 cash; accelerator for LC, will pay £50 cash, will also collect. Rory ☎ 01782 750080 (eve) or 01782 750700 (day)

■ Who has a working handpiece for a Lightning Scan 400 handscanner? Offers. ☎ Holland 703657965 (Tue to Sat, 11am to 5.30pm)

■ Accelerator for Performa 450 (LCIII); motherboard for LC475 (Performa 475) – reasonable prices please. ☎ 01664 464306

■ Apple NuBus video card & Canon CCC10 IPU. Andy ☎ 0589 164877 (mobile phone)

■ Please help new Mac user work Performa – don't know what I'm doing, free help needed. Portsmouth area. ☎ 01705 351067 (anytime)

SWAP SHOP

■ My computer work station wilth slide out shelves for a keyboard & printer for *MS Works* with users guide. Prepared to meet half way to make exchange. ☎ 01257 401716

■ Is there anyone near the Knowle area of Bristol wanting to swap Mac games? Sam ☎ 0117 971 6347

■ Swap my *Song Works* (brand new) for your *Cubase*, *Cubase Lite* or *Concertware Pro*. ☎ 01687 470248 (eve)

■ Swap over 20 MACFORMAT magazines, good condition, for any good flight sim or sell for £40. Ben, Cheltenham ☎ 01242 515519 (eve)

■ *Claris Organiser*, 2 unopened copies, swap for Newton 100 accessories or Newton software. Vivian ☎ 01409 241944

MISCELLANEOUS FOR SALE

■ *Inside Macintosh* new series: *Overview; Macintosh Toolbox Essentials; More Macintosh Toolbox; Files; ResEdit Reference*, all as new – £45. Glasgow area ☎ 01505 612799

■ *Inside Macintosh Overview* – £10; *Toolbox Essentials* – £15; *Imaging With QuickDraw* – £15; *Learn C on the Macintosh* – £5. Andrew ☎ 01743 709482

■ MACFORMAT back issues, three to 13 with disks (issue five missing), 17 to 24 with CD – £4 ea, £55 the lot. Peterborough ☎ 01733 265165

■ MACFORMAT back issues 15 to 25, all with CD-ROM, for sale individually or the lot. Magazine/CD-ROM £1.50 ea or £2.50 together. Other cover CDs £1. ☎ 01603 451839

■ MACFORMAT, Mac, MacWorld mags, 12/93 to 5/95, some disks, some CDs – £2.50 ea. Andy ☎ 01925 414540

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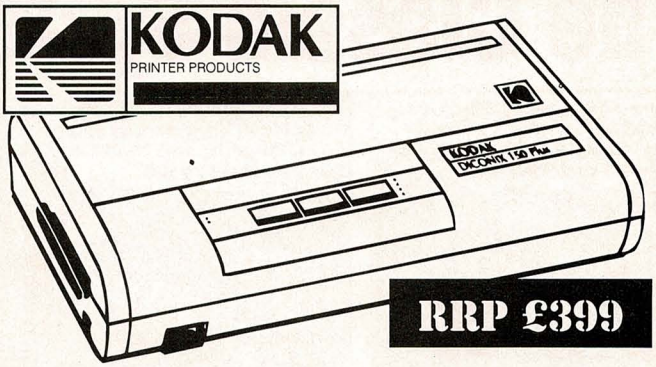

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Buying advice

Whether you're buying by mail or in person, here are some sensible precautions to bear in mind. Note that everything here applies to buying from a business; most of it does *not* apply to buying from a private seller in MACFORMAT's reader ads pages.

Always be absolutely clear about what is included in the price – postage and packing? Any necessary cables, etc? VAT? (By law, an advert must say *explicitly* if VAT is not included; if it doesn't, VAT *is* included. But this could be in the small print – so make sure you read it all!) If you're buying in person, check that everything is there and that it all works properly before you leave the shop. If you're buying by mail, ring the supplier first to confirm the price and availability, and ask what your options will be if there should be any problem. Find out when you can realistically expect delivery. Always keep all the receipts and make records of all correspondence, whether it's by mail or by phone.

How to protect yourself

If you are buying goods of more than £100 in total value, always use a credit card if possible. That way, in the unlikely event of anything going wrong, you'll be legally entitled to claim against the credit card company as well as the seller, even if the seller has gone bust. You might also get extra insurance – check with your credit card company.

If you don't have a credit card, always pay by cheque or postal order (ask at your local post office). Never send cash through the mail – it is impossible to trace if it gets lost, you can't stop payment if you need to, and even if you have proof of posting it is impossible to prove how much you sent.

Keep records. If you're paying by credit card keep a note of the exact time of the order and ask for an order number. If you're paying by cheque make sure you fill in the details of the date, amount and payee's exact name in the stub – and keep it!

When a mail order arrives

Check everything carefully. If there is anything missing, contact the supplier immediately. If something doesn't work, make all the obvious checks (the fuse, etc), but don't try to repair it. If there's anything you're not happy with, don't use it – if you do, you could be deemed to have accepted it.

If there's a problem

Whether you bought it by mail or in a shop, the law says a product must be:

1. 'of merchantable quality' (that is, broadly speaking, it must actually work);
2. 'as described' (in the advert or in person – and this one criterion also applies when you're buying from a private seller, not a business); and
3. fit for the purpose for which it was sold or for the purpose you specified when you ordered it.

If it fails to meet any or all of these three criteria, then you are entitled to return the goods for a refund, receive compensation for all or part of the value, or get a replacement or free repair, depending on the seriousness of the defect. These are the 'statutory rights' that adverts always say are 'not affected' by any extra guarantees. The supplier cannot change or deny these rights.

How to complain

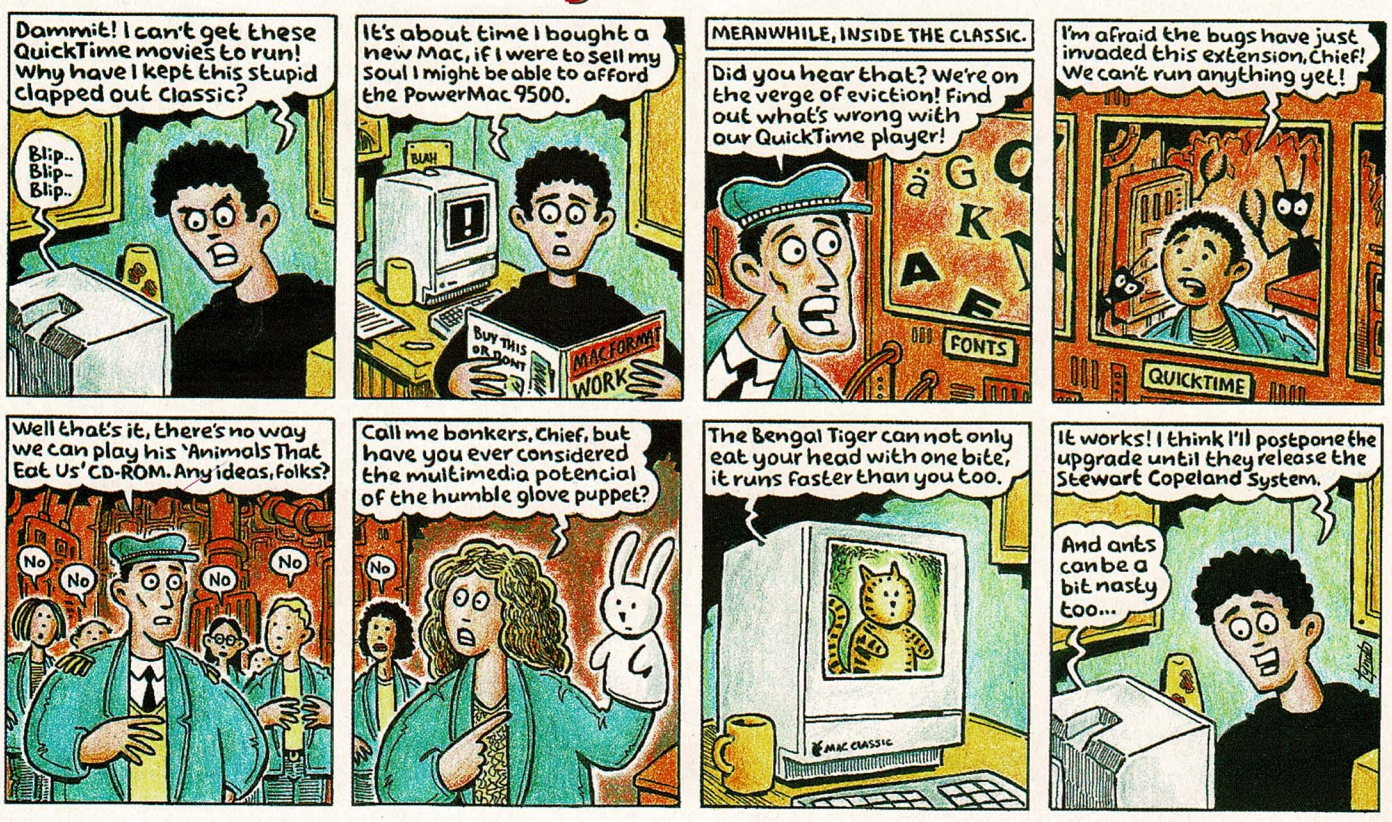
If you're not happy about something, always contact the supplier first and politely explain your problem. Most problems are sorted out at this stage with no fuss. But if yours isn't, put your complaint in writing, clearly stating your problem and including any relevant dates, etc, and send it to the manager or owner – ask for the correct name and job title. Give the supplier a reasonable time to reply – say, ten days or so.

If the problem is still not resolved, you may need to take some sort of legal action to enforce your rights. This need not cost you a lot of money. You should seek advice from a solicitor (ask about the free advice scheme) or from one of the following organisations (check in your local telephone directory):

- Citizen's Advice Bureau;
- Trading Standards Office (listed under your local council);
- Office of Fair Trading; or
- County Court (ask about the 'small claims procedure').

The Classic System Crew

By Bob Lynch


Dammit! I can't get these QuickTime movies to run! Why have I kept this stupid clapped out Classic?
Blip.. Blip.. Blip..
It's about time I bought a new Mac, if I were to sell my soul I might be able to afford the PowerMac 9500.
BUY THIS OR DON'T
MACFORMAT
WORK
MEANWHILE, INSIDE THE CLASSIC.
Did you hear that? We're on the verge of eviction! Find out what's wrong with our QuickTime player!
FONTS
I'm afraid the bugs have just invaded this extension, Chief! We can't run anything yet!
QUICKTIME
Well that's it, there's no way we can play his 'Animals That Eat Us' CD-ROM. Any ideas, folks?
No
Call me bonkers, Chief, but have you ever considered the multimedia potencial of the humble glove puppet?
The Bengal Tiger can not only eat your head with one bite, it runs faster than you too.
Mac Classic
It works! I think I'll postpone the upgrade until they release the Stewart Copeland System.
And ants can be a bit nasty too...

MACFORMAT

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Advancing in small steps – the Tiny Zone!

Hello and welcome again to the Tiny Zone, the section of MACFORMAT that's never over your head. This issue comes to you courtesy of two PowerMac 7100s, one 6100, a Quadra 700, a IIvi, a IIsi, a IIci, a Performa 630, a Classic, and one of those new-fangled 5200s, which just sits in the corner and plays movies at us. Quite a diverse range of models, you might say – and a neat little potted history of the Macintosh, you might add, if you were prone to making rather sweeping generalisations. But yes, there's everything there from almost the very latest PowerMac to almost the very humblest vintage Mac, still working productively – proof positive, if you needed any, that you don't have to dump your old Mac as soon as a new model comes along. But of course with new models appearing so thick and fast, and prices falling so steadily, it's hard not to feel that you're being left behind, that you've made the wrong choice whatever machine you've got, or that you should have waited just those few months more for the latest, fastest, bestest new Mac. Well, let me say this, right from the keyboard of my trusty old IIsi: if your old Mac, your old version of the System, or your old software does the job, why upgrade just for the sake of it? Take poor old Derek, for instance. He's a bit of an enthusiast, you see, so he's got to have the newest thing. Leapt at System 7.5 the second it came out, and now 7.5.1. Only it seems that the upgrade is as buggy as an ant-hill, and half his software collection is now going all temperamental – and don't even *ask* about all the shareware he has to test! Of course Apple and all the retailers in the world want you to keep upgrading, and without a doubt the vast majority of the new Macs, peripherals and software upgrades are excellent things, with better features, more usability and ever better value for money. But I still reckon it's wise to hasten slowly, and as far as I can see 'early adopter' is another term for 'unintentional beta-tester'...

NEXT MONTH

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PLUS *HyperCard* vs *SuperCard* ■ CD-ROM encyclopaedias ■ Clip art ■ The biggest games of the year: *Doom 2* and *Discworld*! ■ The ground-breaking Zip drive ■ How to get more from your sequencer ■ The latest news (hot from the Boston Mac Expo!), practical how-to's and authoritative reviews.

ARE YOU A WINNER?

Back in MACFORMAT 24 we gave you the chance to win a fabulous Umax Vista-S8 A4 flatbed scanner, complete with transparency adaptor. The lucky winner is Jane Ward of Broadstairs in Kent. Congratulations, Jane!

In the same issue, we also had ten copies of the magnificent *Marathon* up for grabs. The winners are: Roy Grant of Warwick; Dr M C McAra of Dundee; David Andrews of Chorley, Lancs.; R N Clark of Witham, Essex; Christopher Ball from Hove, East Sussex; L Lagerstroem from Tyresoe, Sweden; David Gilmartin of Denny, Stirlingshire; Thomas Spooner of Colchester, Essex; Peter Bashford of Emberton, Bucks.; and Steve Watts of Reading, Berks. 40 runners-up get a *Marathon* poster and Softline mouse mat, and 100 more get a mouse mat... Everyone who entered gets a voucher for £10 off the game! Any enquiries, call Softline on 0181 401 1234.

MACFORMAT 29 goes on sale on Thursday 31 August

Available with high density floppy disk or CD-ROM. Ask your newsagent to save you a copy or see the insert in this issue for our special subscription offers

Win a Wacom UltraPad graphics tablet

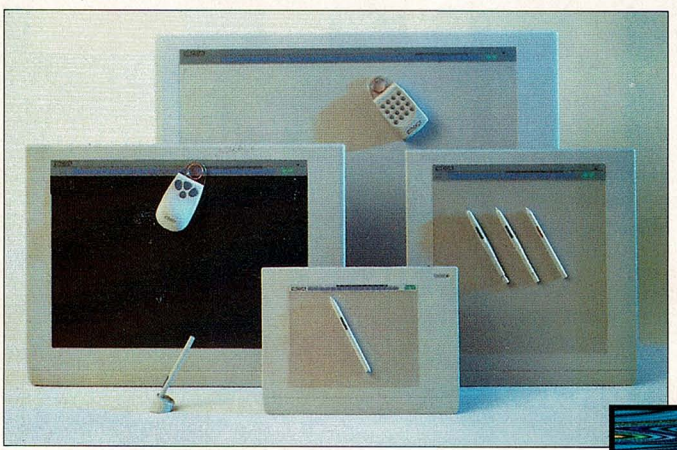
Not just a graphics tablet, but the very latest – so new, we haven't even seen one yet! There's seven to be won, courtesy of Wacom, worth a total of over £1,700!

Keyboards and mice are fine if you're simply processing words, and just about adequate for layout or DTP, but using a mouse for graphics work is about as intuitive as trying to draw with a brick. The ideal input device is one that makes creating Mac graphics as natural as drawing on paper – a graphics tablet. And among graphics tablets, the Wacom range are renowned for quality and usability.

Wacom have just announced a new range of models, the UltraPads, and now Wacom Computer Systems and MACFORMAT are offering seven readers the chance to win one, complete with UltraPen Eraser, an innovative new pressure-sensitive pen that features not only a standard drawing tip but an 'erasing' tool as well!

First prize is the new UltraPad A4 graphics tablet, with UltraPen Eraser. The UltraPad is so new that its retail price is yet to be decided, but the current equivalent model costs around £645! Second prize is an UltraPad A5 tablet with UltraPen Eraser – the equivalent current model is £457. But that's not all! *Five* runners-up will each receive a compact ArtPad II and UltraPen Eraser (current model £198).

UltraPad A4 is a square format tablet with a transparent overlay, ideal for graphics and CAD applications. It has a 12-inch-square active surface area, giving you plenty of room for sweeping strokes, full-page creation at scale or extensive image manipulation at a reasonable magnification.



The UltraPad A5 has an active area of 6 inches by 8 inches, and also includes a transparent overlay so you can secure artwork for tracing or affix menu templates, making it easy to execute menu commands using just your stylus. The UltraPad A5 has all the features you need for paint, illustration and image manipulation work.

The ArtPad II is the upgrade to Wacom's popular small format tablet, launched last year. With an active surface of 4 inches by 5 inches, ArtPad II fits unobtrusively on your desktop and is ideal for the non-professional artist in business, education or home, or simply for anyone who needs a better input device.

The UltraPen Eraser is the latest in Wacom's range of styluses, and like them it is pressure-sensitive, battery-less and cordless, making it natural, light and effortless to use. What's new is that it enables you to *erase* in paint, word processing and spreadsheet applications simply by flipping the pen and rubbing out!

To win one of these fabulous prizes, generously donated by Wacom, just answer the simple questions below and send us your entry on a postcard or the back of a sealed envelope, to arrive by Friday 15 September.

The Rules

Employees of Wacom Computer Systems, Future Publishing Ltd or associated companies, and their families, are not eligible to enter. Multiple entries are not allowed, unless accompanied by an A4 art pad, pen and eraser. The editor's decision is final, there is no cash alternative, and no correspondence will be entered into. Please state if you don't want your name added to a mailing list.

THE QUESTIONS

1. Wacom's new UltraPad A4 is ideal for graphics and CAD uses. What does CAD stand for?
(a) Computer Assisted Draughting
(b) Computer Aided Design
(c) Completely Awful Drawing

2. Which of these is *not* true of the Wacom UltraPen Eraser?
(a) It's pressure-sensitive, battery-less and cordless
(b) It's the world's first all-purpose *erasing* computer stylus
(c) It doubles as a Swiss army knife, with cotton-tip, razor-blade and egg-whisk for really *special* effects

3. The Wacom UltraPad A4 and A5 both come with a transparent overlay. What is this for?
(a) It's a nice dust-cover
(b) If you accidentally draw on the tablet with a *real* pen, you can tear it off and throw it away
(c) It secures artwork for tracing over

Easy, right? If you need any help, just turn to our graphics tablet reviews on page 88. Send your answers on a postcard or sealed envelope (not forgetting your name and address) to: 'Wacom UltraCompo', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

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MacWrite Pro 1.0	(M)	3 Videos
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Now Contact/Up to Date	(M)	1 Video
PageMaker 5.0	(X)	6 Videos
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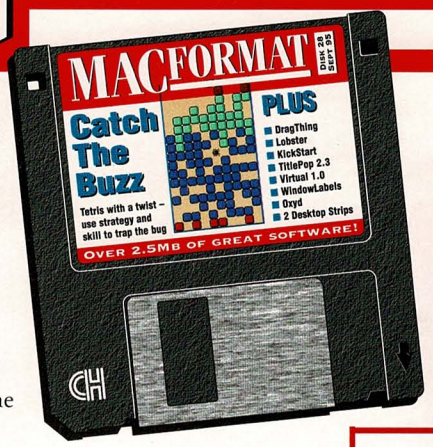
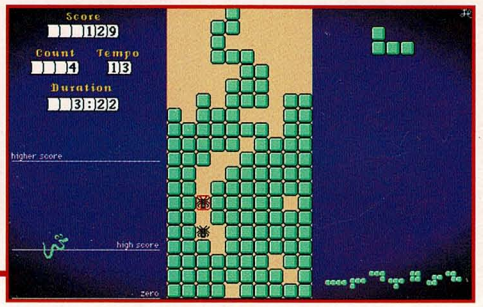
ON THE DISK THIS MONTH...

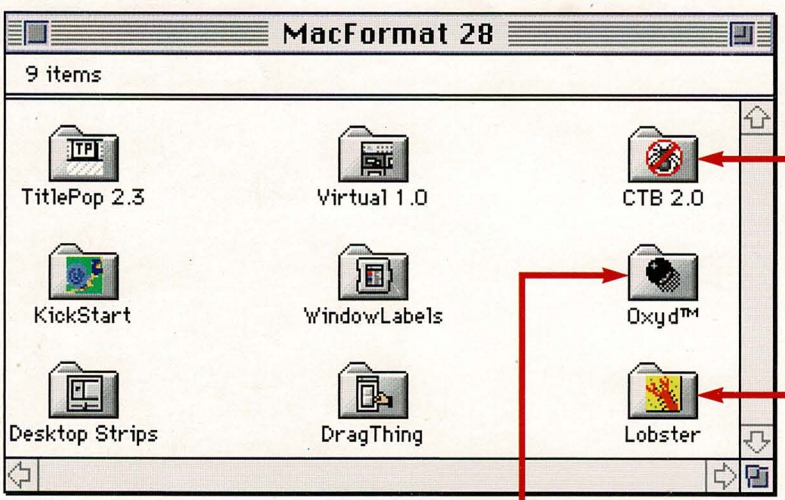
It's a wonderful job putting together the floppy disk every month because there is so much great software to bring you. This month we have three beautifully addictive games and the sort of utilities that make you wonder why they're not built into the System software in the first place!

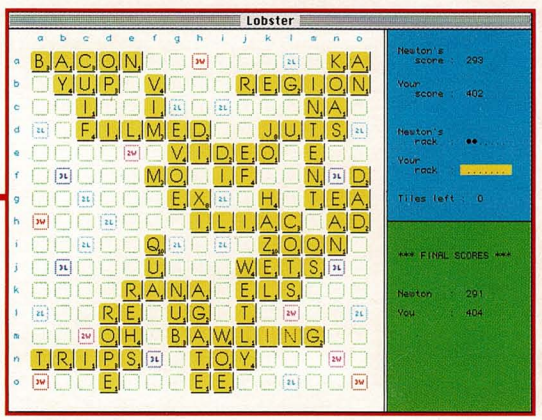




CATCH THE BUZZ

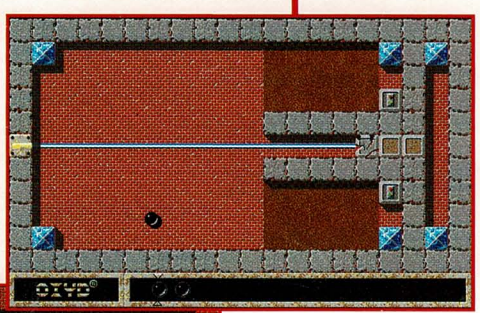
Tetris is surely the most popular computer game the world has ever seen, and this adds a whole new dimension to it. As well as playing a straight game of *Tetris* you can elect to catch the buzz, a little bug that wanders about the screen and needs to be encased. It had the MACFORMAT office hooked! Requires: Any Mac, 800K free RAM

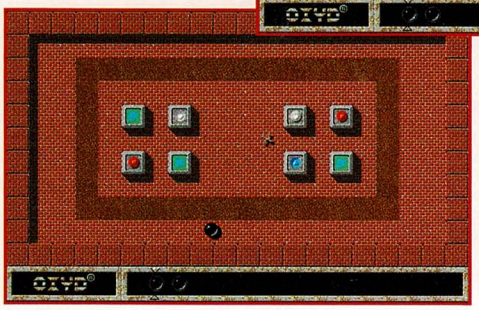




LOBSTER

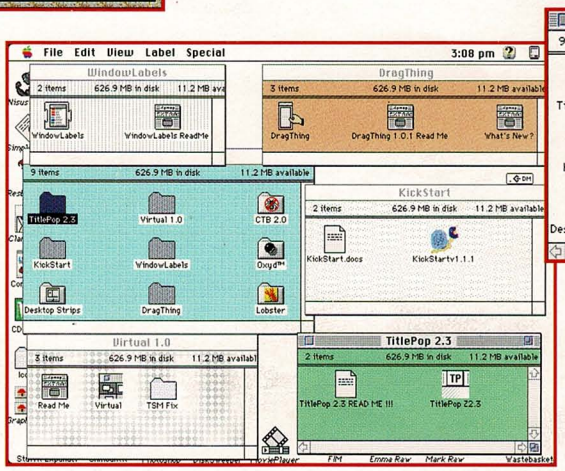
This game wins the Silly Title of the Month award, as it has rather more to do with Scrabble than any aquatic crustaceans. It has a 29,000 word dictionary, which is almost as many words as we know between us, and it plays a mean game too. Go on, test your vocabulary! Requires: Colour Mac, 900K free RAM

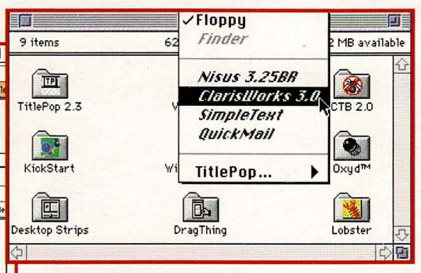




OXYD

This well known shareware game has just been updated and is now even better. It's a combination of puzzle and arcade game, which requires a lot of skill and logic to progress. There are 200 compulsive levels to discover, and it even works on a Classic!





UTILITIES

Virtual is a terrific utility for anyone who wishes their monitor was larger – it gives you four Desktops! *Window-Labels* extends the Label menu, so you can not only shade icons, but colour whole windows! *DragThing* is a floating palette that can give you instant access to any file, folder or disk, while *KickStart* finds and opens any application on any disk in seconds. *TitlePop* enables you instantly bring any open window of any application to the front, and we have two more strips for the *Desktop Strip* utility featured last month, giving quick access to many Mac functions.